

2017 Annual Report



CSEG

Canadian Society of
Exploration Geophysicists



CSEG 2017-18 Board of Directors

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Ronald Newman, Vice President

Graziella Kirtland Grech, Director Educational Services

Geoff Fraser, Assistant Director Educational Services

Karen Chong, Director Member Services

Rebecca Daniels, Assistant Director Member Services

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David Shorey, Assistant Director Finance

Elizabeth Atkinson, Director Communications

Marian Hanna, Past President

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Showing the World
how to Understand
the Earth.

CSEG 2017 ANNUAL REPORT

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President

My goals as President of the CSEG in fiscal 2017 were to:

- a) Continue to be fiscally responsible by heading towards a minimal to zero deficit budget
- b) Support the CSEG social programs as opportunities for networking and fellowship
- c) Promote the business value of geophysics
- d) Continue the CSEG strategies as initiated by Marian Hanna in 2016

As we gear up to drive through 2018 I can confidently state these goals were achieved with a high degree of success.

Financial Budget Fiscal 2017

By providing leadership at the Board level and having the message of fiscal prudence percolate down through the Director's to their sub-committees and on to the working volunteers we took a deficit budget of over \$250,000 and ended up with a short fall of \$3000. Many thanks go to sacrifices of the CSEG staff, and the efforts of all the volunteers supporting our technical committees at Geo-Convention, Symposium, Doodletrain, Recorder and the many lunches. The volunteers at our social functions, Doodlespiel, Ski-Spree, Volunteer Appreciation party, Stampede party, as well as the Doodlebug, T-Wave and WISE golf tournaments, created cost effective events that added tremendous networking and social interaction with our employed and under – employed members. The CSEG-Foundation also provided a classic and entertaining networking evening at the EPP-JGF and Mentoring function. Well done by everyone. Thank you.

Business Value of Geophysics

Throughout 2017, as the CSEG President, I promoted the business value of geophysics wherever I went. Whether it was the EAG in Paris, the SEG in Houston or various cities and campus's in New Zealand getting the message was a priority for me. The presentation came in two forms: the 45-minute luncheon presentation or the full day course taught during the CSEG's Doodletrain week. The paper provided the background to the VIG session at Geo-Convention 2017 and was part of the WIUGC geophysics presentations in Edmonton and numerous discussions at the CGF. Getting the word out to the oil and gas sector in this environment is difficult but not impossible. Getting access to the decision makers is still our biggest challenge.

CSEG Strategy and the Changing of the Guard

Back in April 2016, under the direction of Marian Hanna, the Board reviewed the old and created a new CSEG strategy focusing on four themes: Financial Health, Member Value, Promotion of the Society and Position of the Society.

With a sense of urgency, a portion of the board prioritized the Strategic Plan, focused on Financial Health, and created a special sub-committee to look for different or alternative sources of revenue, called the New Initiatives Committee (NIC), initially chaired by myself and then in 2017 by Keith Millis. The committee with seven other members of the society, came up with a number of concepts, including an idea through Jessica Galbraith to ask the University of Calgary's Haskayne school of business MBA Marketing Class to do a Marketing study for the society. Under Jessica's guidance, a proposal was built based on the past financial history the CSEG, the social and technical aspects of the society and who the members of our "Trade Association" actually were. A survey was sent out to a focused group of CSEG members and oil and gas companies to identify CSEG Ambassadors and Decision makers within those companies and asked their input and concerns. The proposal was pitched to the MBA class in January 2017 and they started immediately using the survey results, contacts provide and subsequent interviews with the 32 "Decision Makes" and their own connections.

New Initiatives: External Advice

The class was broken into 6 groups of 3- 4 students who gave the CSEG Board members and their classmates a presentation in April 2017. The results would be characterized by the following themes: Expenses and Revenue, Training, Merge or Re-Invent, Emerging Professional Programs and Students and were summarized by Keith Millis and Neda Boroumand.

New Initiatives: Internal Advice: Changing of the Guard

In order to get ideas and guidance from the leadership team of the entire CSEG membership, a meeting with all the Chairs of all the Technical and Social Committees of the CSEG and CSEG-Foundation and the CSEG Board was held in September 2017. over 50% or 22 of the 42 invited chairs or their representatives attended. They were challenged to answer the question: What is the most important thing that the CSEG should do now to remain relevant? They were then split into two groups and were asked to provide their thoughts on the four themes identified by the MBA students. They in turn created a stellar number of ideas and concepts related to: alternative training and course ideas, the Recorder, a Recorder blog, the Digital media promotion of our webpage and the society, a long list of potential advertisers, several societies and associations to merge or combine with, certification processes, APEGA relationships, job identification and diversification for our members.

"What is the most important thing that the CSEG should do now to remain relevant?"

The CSEG Board then met in November 2017 to discuss the external advice and internal advice and come up with a plan of action. This resulted in a number of ideas and plans that were revisited again in February 2018 and are now part of the CSEG Board's next steps. One must keep in mind that the society, like any other business has limited resources to carry out its plans or operations. Those resources are people, time and money. It is easy to come up with a number of initiatives, it takes a prioritized strategy to decide which ones to act on.

Next steps, where are we taking the society?

What the Board decided NOT to pursue:

Merge: We will not be merging with another professional society at this time. The CSEG is in relatively good financial shape, especially compared to all the societies or organizations we could have merged with. We will seek collaborative activities with our sister societies, CSPG, CWLS, SEG and EAGE. We will continue to support geophysics in Canada. The "E" as in exploration will just be less emphasized.

Certification: We will not proceed down the road of geophysical certifications. There are not enough resources or desire to challenge what academia and APEGA – the Regulator, are responsible for.

What we WILL be pursuing:

1. **Welcome to the Digital Age Committee:** Elizabeth Atkinson, Chair
 - APS, friendly Digital advertising, training committee collaborations etc.
2. **Training Committee:** Geoff Fraser
 - Co-ordination of Doodletrain, Symposium, other courses and workshops including online training, basics etc.

3. **Financial Future:** Marian Hanna, Chair

- Diversify advertisers and sponsorships, CSEG events, Website advertisers, Recorder Archives, non-traditional advertisers, CSEG merchandise etc.

4. **Future Directions:** John Duhault, Chair

- Survey: Focused on CSEG members, their concerns, wants and needs etc.
- Collaborations with other societies in Canada and International

5. **APEGA Relations:** Ron Newman, Chair

- Sponsorship, training and support

The future of the CSEG:

Having much success with reducing the 2017 budget deficit to \$3000 was absolutely fantastic. This gives the 2018 executive that, even though they are starting with a conservative budget deficit of \$128,000, market conditions, the society Leadership team and the ongoing membership commitments will all determine if the budget deficit will get to zero fiscal 2018.

The "Changing of the Guard" for this society has begun.

Live long and prosper to all the members and future Board members of the CSEG!

JOHN L. J. DUHAULT

CSEG PRESIDENT – 2017

Vice President

As Vice President my roles were to focus on reducing expenses and increasing revenues, new office space for the CSEG, relationship with APEGA, CSPG and SEG and strategic planning of the CSEG board.

APEGA

We have spent time in meetings with APEGA and their role in helping out the CSEG and the CSPG in these difficult economic times in the Geoscience community. We, the CSEG, put on various educational courses which APEGA members use for Professional Development Credits. We think APEGA understands this in a positive light and we believe will help out our organization in 2018.

Office Space

Calgary has seen the downtown vacancy space rise to an unofficial 45%, but the silver lining in the cloud for the CSEG is that our office space lease expires in September of 2018. We have spent some time talking to various energy companies about donating 2000 square feet of office space in return for a taxable benefit. Many of these companies have over 50,000 square feet of office space empty, and no possible tenants for the foreseeable future. We are still in discussions. Regardless, in the world of zero rent and minimum operating costs, the future looks bright for CSEG office costs in the future.

Education

The real focus for the CSEG in the coming year continues to be education. In the past year, the Doodletrain was very successful as it affords the brightest minds the opportunity to learn, to participate and flourish. The Symposium, Geoconvention, our lunch box Geophysics series and our Microseismic users group all had successful years and we hope for continued growth in the coming year. Technology will change the world, and advancements in geophysics are no exception. So therefore the CSEG must continue to concentrate on education to encourage those brilliant minds studying at Universities, and working in our oil and gas industry.

Digital age

During the past year, the CSEG has taken great strides to pull the organization into the digital world. We hope, under the direction of Geoff Fraser, we can take that next step in the digital age. Obviously, we have changed the issues of the RECORDER to only one paper copy a year around convention time. We have been able to take that and turn that into a financial win for the CSEG. It turns out that many of our committed readers are international. We are striving to take that information and turn it into new advertising dollars.

Volunteering and other geoscience organizations

CFES

CFES or the Canadian Federation of Earth Sciences is an organization dedicated to the promotion of Earth Sciences across the

Country. They are very fortunate to have Graziella Kirtland Grech as their President-elect. I am sure you recognize the name. Graziella has worked tirelessly on the CSEG executive for the past number of years. We have attended by conference call most of their meetings this past year. We, the CSEG support their organization financially.

ESFS

The Earth Science for Society committee believes that increased science literacy is essential for the students of today as they are the decision-makers of tomorrow and the future caretakers of the Earth. Many of the executive and CSEG members volunteer for the ESFS exhibition which is held annually in Calgary in March.

Samuel Quiroga, who is Chair of the CSEG Foundation Outreach Committee organizes the volunteers for this tremendous event.

CSPG

The Canadian Society of Petroleum Geologists is an organization which we are very close to. We continue to spend time with them in an effort to define sustainable projects where we can work together in these tough economic times

STRATEGIC PLANNING

We have spent a lot of time this past year talking about the future of the CSEG and the strategy we need to employ for the future. Led by John Duhault, our President, we have made great strides in discovering what our members want, what our members need and what is the financial sustainability needed to survive in these tough economic times.

Memberships

We are quite disappointed in the number of oil and gas company corporate memberships. Our service companies are very supportive in these times. We will make a push in 2018-2019 to see if we can improve their interest in the CSEG. One of the issues of membership is the lack of accurate email addresses. Our database gets out of date very quickly, as in these times people move to new jobs and new locations.

2018/2019

We look forward to the coming year with our glass half full! The future of the CSEG is bright. We may never get back to the heydays of geophysics, but by thinking 'outside the box' we can advance the science of geophysics on a Canadian stage and be very successful.

RONALD NEWMAN

CSEG VICE PRESIDENT – 2017

Past President

Reflecting back on my last three years of service to the CSEG has confirmed my belief in the power of people, especially during tough times. The CSEG can be very proud of the accomplishments made in the past year. Some decisions were difficult and change was necessary. However all the blood, sweat and tears from everyone contributed towards the goals set for the CSEG.

The CSEG Strategy Plan continues to be a focus at the monthly Board of Directors meetings especially around the discussion of budget and financial health. The four main CSEG Strategy plan objectives are:

1. Financial Health
2. Member Value
3. Promotion of the Profession
4. Position of the CSEG as a professional society

The CSEG Board continued to work together and plan big as we move toward the 75th Anniversary in 2025, which is not that far away.

The SEG Council meeting was attended by the CSEG Board members and the District Representatives during the SEG Annual meeting in Houston, TX. I continue to be proud of the leadership, innovation and strategic planning the CSEG exhibits at this meeting. There will be more opportunity to collaborate with the SEG in the future.

The CSEG Foundation continues to work hard to support education with balance and vision for the future. Your donation to the CSEG Foundation helps students, academia, young professionals, the CSEG and its members, and society as a whole exemplified by ESFS (Earth Science for Society). Please donate!

We continue to face many challenges ahead as a Society. All geoscientists are encouraged to keep their membership current, update their training and Convention participation, stay connected and get involved through volunteering for the CSEG. If you are unemployed, take advantage of the CSEG unemployed member rate and training support through the CSEG Foundation.

Thank you for the honor of representing the CSEG and the membership for the last three years. I believe the CSEG will thrive. The CSEG still has the best member volunteers by far and the Society needs that level of passion. Your advocacy, volunteering and support are vital for the CSEG.

MARIAN C. HANNA, ICD.D, CPG

CSEG PAST PRESIDENT – 2017

Education Services

Though oil prices have slightly increased in the last few months, for the most part 2017 has been another year of cost cutting and cautious spending in the oil and gas industry. When budgets are tight, and there is less money for training and continuing education, members as well as employers want to make sure that they or their employees are getting the best return on their investment. Myself as Director, together with Geoff Fraser as Assistant Director of Education Services, and all the committees that fall under the Education Services umbrella, including Lunchbox Geophysics, the Microseismic User Group (MUG), the Value of Integrated Geophysics (VIG), the Symposium and the DoodleTrain, have worked extra hard to ensure that interesting and relevant material is brought to our members be it in the form of presentations, talks or courses, whilst operating at minimum costs.

It was particularly encouraging to see a solid attendance at the Technical Luncheons this year, with some luncheons being sold out. I would especially like to thank the former Director of Education, Ken Gray, for helping to secure a good selection of speakers for 2017 early on. The talks presented in 2017 were as follows:

- ▶ **January 23:** *Challenges and Strategies for Monitoring Induced Seismicity* by Dario Baturan
- ▶ **February 27:** *Marcellus/Utica Shale PSDM Case Study - Improved Structural Imaging and Rock Properties* by Morgan Brown
- ▶ **March 27:** *Two Workflows for Image-Based Near-Surface Modeling for Statics Corrections and for Circumventing Velocity Uncertainty in Subsurface Imaging of Complex Structures* by Oz Yilmaz
- ▶ **April 24:** *Seismic amplitude fidelity and its impact on 3D and 4D seismic interpretation* by Paul Hatchell (SEG DL)
- ▶ **June 19:** *Practical QI* by Laurie Bellman
- ▶ **September 11:** *New technologies for permanent reservoir monitoring – the CaMI Field Research Station* by Don Lawton
- ▶ **October 10:** *The (Geo)Science of Safety: How Geoscientists are Making Potash Mines Safer* by Craig Funk
- ▶ **November 6:** *The final shakeout phase of the 2014 energy bear market is now underway – what happens from there?* by Josef Schachter

Thanks also go to the Director of Member Services, Karen Chong and the Managing Director, Jim Racette for identifying and securing the Bow Valley Club as an alternative venue for three of the luncheons while the Calgary Petroleum Club was undergoing

renovations. All our luncheons would definitely not run as smoothly without the help of the Technical Luncheon Committee; Mohammed Al-Ibrahim, Marc Boulet and Karl Mome. These dedicated volunteers always take care of the luncheon agenda and introductory slides, and make sure that the audio-visual equipment is in order. Special thanks also go to the Technical Luncheon sponsors. Their financial support was much appreciated. It was also my pleasure to present the Best 2016 Technical Luncheon presentation award to Ann O'Byrne during the November luncheon. The title of her presentation was *"Improving seismic data while decreasing costs"*.

On December 5th and 6th we also hosted the SEG's DISC (Distinguished Instructor Short Course). The title of the course was Geophysical Electromagnetics: Fundamentals and Applications and the instructor was Doug Oldenburg. The two-day session consisted of a full course on the first day, followed by more material and discussion based on problems of interest on the second day.

As times change, teaching formats and training needs tend to follow-suite. For this purpose, as part of the strategy planning session, the CSEG executive has identified the need to set up a new committee to focus on the future of Education Services, basically to investigate what we need to stop doing, continue doing and start doing to ensure that our training program stays interesting and relevant to our members, not only during these challenging times, but also into the future. An initial meeting was held in December with the chairs of the committees that fall under Education Services. A new Education Committee will be set up in 2018, please consider volunteering for this initiative.

Last but not least, I would like to thank all members who participated in, or attended one or more of the various Education Services offerings during 2017, as well as companies who sponsored our various education events or supported their employees' attendance. Such activities would not be possible without such participation and support.

GRAZIELLA GRECH

DIRECTOR, EDUCATIONAL SERVICES

Communications

This year has seen a lot of changes in the CSEG communications. The fiscal challenges for the CSEG and the need to quickly reduce the deficit led to decision, late in 2016, to go (mostly) digital. The need for swift action meant that changes were not analysed in advance perhaps as much as would have been ideal. However, the move has significantly reduced the unfunded cost of the RECORDER, which helps support the long term viability of the society (see graph below). Thanks very much to our long term advertisers who have stuck with us. We intend to continue to print the convention RECORDER each year, as it is popular and generally cost effective. We anticipate the other RECORDER editions will remain digital.

Thanks to the RECORDER committee for all of their hard work creating the content we all value. This year Nicole Willson was Chief Editor until September, when she became Associate Editor, and Brian Schulte took over. Over the next while, we are looking at ways to take advantage of the digital platform of the RECORDER and website, to enrich content and improve the members and readers experience, and to build value for our advertisers. We are continuing to document and working to improve the "hits" to our website (both RECORDER and CSEG sites). Because our older archives are open, we already receive a lot of attention from the global geophysical community. The committee is considering publishing more content in advance of each issue, such as abstracts or introductions to upcoming articles, to attract interest.

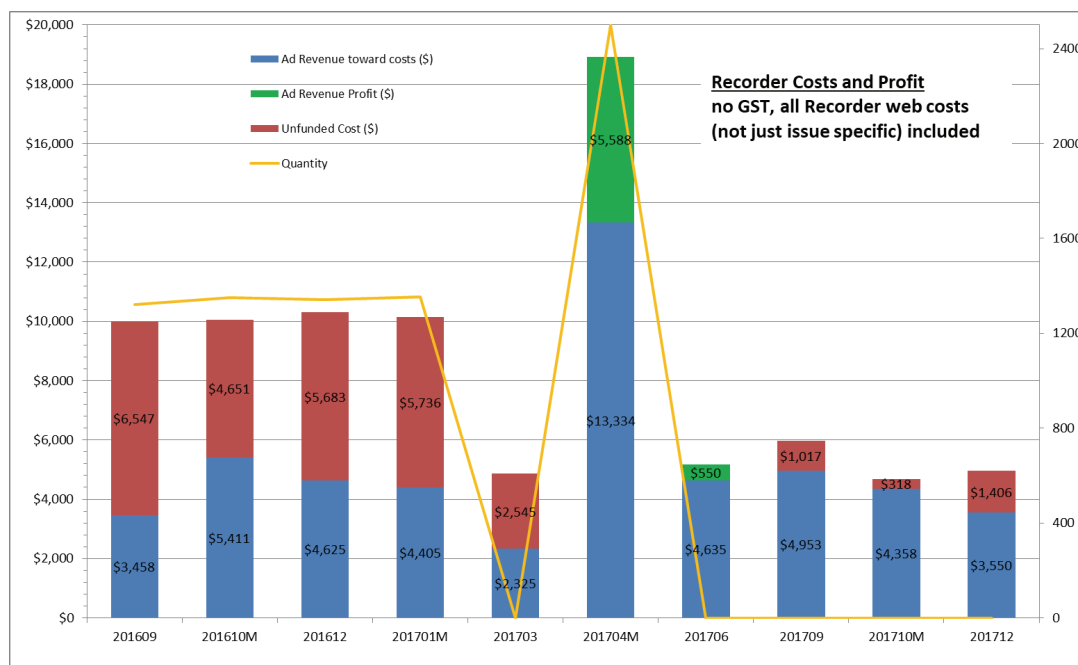
Thanks also to the Digital Media Committee, led by Jason Schweigert, who are working on improving how we use digital platforms, including social media. In particular, we are expanding the use our Linked-In page. Brian Schulte has posted a lot more RECORDER announcements, and it is good to see other groups like the

Emerging Professionals using Linked-In, as well. Over the next year, we hope to increase Social Media use, and are looking at platforms and ways to encourage the community (both other committees and individual members) to participate. Linked-In can be a great forum for the membership to talk. Any member can start a discussion. Topics could include technical questions (as a "help forum"), RECORDER articles and technical issues, educational opportunities, giving back through the Foundation, and social and networking events past and future. We can also discuss any issues that the membership find controversial, openly sharing our opinions with each other in a constructive environment. As participation increases, we also are looking at increasing our digital advertising and revenue.

Finally, thanks to Larry Lines and Satinder Chopra, co-editors of the Canadian Journal of Exploration Geophysics (CJEG), the peer-reviewed journal of the CSEG that encompasses all aspects of research, exploration and education in applied geophysics. Unfortunately, the difficult economic circumstances mean that CJEG currently receives no direct budgetary allocation from the CSEG. The co-editors and associate editors have persevered to publish a shorter version of the CJEG this year, which is available in the Members Only area. Copy editing costs this year were supported from donations to the CSEG Foundation, and 2018 will be similar. Hopefully a return to the previous rate of publication by some means will be possible in years to come.

Thanks for your continued patience while we work on these initiatives – ideas are always welcome.

ELIZABETH ATKINSON
DIRECTOR, COMMUNICATIONS



Member Services

This year has been a remarkable testament to the resilience and perseverance of the dedicated members that constitute the Canadian Society of Exploration Geophysicists. Throughout continued hardships as the industry finds its footing, our dedicated volunteers and passionate members have maintained a solid community with sustained enthusiasm for the society and the field of geophysics.

The positive experiences that motivate our members to contribute and be a part of the CSEG community have continued and will continue into the years coming. This is reflected in our sponsors, both private and corporate, who recognize the value of the CSEG and the community of our members.

The adaptations and innovations we have taken as a society in the past year have contributed to the continuing success of the society. The efforts that our staff, our volunteers, our sponsors, and our engaged members have contributed to these adaptations must be commended – without these elements and their efforts, the society would not be the thriving, active community it is today.

With the utmost gratitude to all of those who are a part of the CSEG, on behalf of Rebecca Daniels, and the rest of the CSEG Executive, I would like to acknowledge our societies volunteers for their efforts to which the success of our society is of the highly indebted. Countless volunteer hours have been contributed to the variety of educational, social, technical and outreach events by the CSEG. It is the willingness and desire of our volunteers with their energy, effort and of all the amazing work that has been fundamental in accomplishing our goals as a successful society.

In March, following the Annual General Meeting, we will hold the annual volunteer appreciation evening to highlight the efforts of the over 40 different committees across the CSEG and CSEG Foundation. This event is a wonderful venue to network with all contributors to the society and highlights our efforts ensure that everyone feels valued for their contributions.

Social Committees

The 45th annual Doodlespiel in Banff, Alberta was extremely successful. As per the standard, it was a great weekend of curling and networking. A family and fun filled time was had at the

celebration of the 50th Annual Ski Spree in Fairmont Banff Hot Springs Resort, in Fairmont, BC. The T-Wave in June was a well-organized tournament making for a day of comradery and golf. The Doodlebug Golf tournament committee did a wonderful job organizing the 65th annual weekend at the Banff Springs Golf Resort, delivering a fantastic weekend of both friendly and intense competition as well as well-received social events throughout the weekend. Women in Seismic (WiSE) was a well-run event with a focus on fellowship and fun, donating again to the Alberta Cancer Foundation. The well attended CSPG/CSEG/CAPL Road Race in September was a success again this year.

Professional Resources

The JGF was a well received feat under the EPP. This event included a highly regarded panel discussion, with panelists from all corners of geophysics and the industry community. Along with the JGF, the EPP held a plethora of events in 2017, including multiple inter-society young professionals networking events with well over 100 attendees each. Professional development events were also held for technical skills, soft-skills training, and software training. The Mentorship program has continued to be a strong, successful program for both mentees and mentors, especially with the inclusion of EPP members.

The CSEG Ambassador program has also moved back from the Executive to fall under the direction of the very capable Foundation. We endeavor to stay connected with our members across Canada and making new connections by holding events in different locations around the country. If you are interested in being involved in this network as an Ambassador, please reach out to the Foundation.

Thank you again to our exemplary volunteers, who are the embodiment of the values and goals our society endeavors to be, for their time and dedication to give back to the CSEG and our community. It is in you and your efforts that carries our society forward into the future.

KAREN CHONG AND REBECCA DANIELS

DIRECTORS, MEMBER SERVICES

Finance

In 2015 and 2016, the CSEG felt the impact plunging oil prices, that started in late 2014, had on the Energy sector. This impact continued into 2017. Over the three years, the Society experienced a decline in sponsorship of technical and some social programs, advertisement in the CSEG's RECORDER publication and on the CSEG's website, individual and corporate membership renewals, registration at continuing education courses, workshops and lectures and Geoconvention profits. As a result, the Society ran a deficit in 2015, 2016 and 2017 (see figure 1) and ignited fiscal prudence. The Board took stringent steps to cut unnecessary spending, became judicious with the use of resources and limited perks across all programs.

The most notable changes the members experienced in 2017 were:

- Annual dues:** We introduced three different pricing levels for annual dues that fit the member's annual salary upon renewal. This was with the intent to increase cash flow but also to retain members whose employment was affected by the downturn.
- RECORDER-digital:** We transitioned toward a fully online RECORDER publication and removed paper print editions. This was to cut printing costs and to align ourselves with one of our strategic plans which was to improve the member's online experience and go digital.
- Reduction in financial support and cost saving:** We evaluated financial performance of non-core programs. We had to reduce financial support to social programs, did not budget to cover lunches, allowed programs in good standing (i.e. programs that broke even and/or came in under budget) continue to operate and had a slight reduction in lease payments.
- Sponsored rates:** The CSEG sponsors and the CSEG Foundation continued to partially or fully fund student, unemployed and under-employed rates for a variety of programs including luncheons, Doodletrain, Geoconvention and Symposium registration. This was to increase attendance to our top member valued programs and maintain member engagement.

The CSEG began the 2017 fiscal year forecasting a year end deficit of ≈\$252K. Throughout the year, several cost saving measures were taken

and several portfolios performed better than expected. The result was a year end deficit of ≈\$3K, a 99% improvement upon budget.

These were the main factors that contributed to reducing the deficit, either through increasing revenue or reducing expenses:

- Geoconvention:** In 2017, the Geoconvention generated a profit and the CSEG received its share in the amount of ≈\$122K as revenue.
- Doodletrain:** The Doodletrain generated a profit of ≈\$34K. This was because the instructor fees were less than expected and a couple of them chose to cover their own way. There were little expenditures on printing and more underemployed and students registered in the last couple of weeks than expected.
- RECORDER:** The deficit in this portfolio was lower than expected because revenue for the RECORDER was higher than expected. The revenue was budgeted low due to concern over the bad economy and potentially low advertisement because of the transition to digital. Also, the number of print issues were reduced and this kept the RECORDER expenses down significantly throughout 2017.
- Luncheons:** The main reasons for having a higher revenue than budgeted were because more sponsors and more tickets were sold than expected. Also, there were less tickets confirmed with the CPC, than the ones sold.
- All other programs:** There was significant cost saving and revenue generation efforts across all other programs. Each administration, digital media, member services and executive expenses, professional outreach stuck close to their budgets and/or came in under budget. The Symposium program, for example, received higher than expected interest which boosted revenue through increased sponsorship and attendance. They also had a couple of out of town guest speakers cover their own travel expenses because they timed their business meetings in conjunction with the event.

Throughout 2017, the CSEG Board remained committed to exercising fiscal responsibility and ensured the forecasted improvements were realized. The goal was to reduce the deficit and the Board, in collaboration with the incredible volunteers, committee chairs and dedicated staff accomplished this.

However, 2018 forecasts another deficit year (see Figure 1) and the strategic efforts must continue and be measured for success and evaluated at every Board meeting throughout the year. This will ensure that the Society's financial performance remains inline with our four strategic pillars 1) financial health, 2) member value, 3) promotion of profession and 4) position of society and help move the CSEG into a sustainable position.

NEDA BOROUMAND
DIRECTOR, FINANCE

DAVID SHOREY
ASSISTANT DIRECTOR, FINANCE

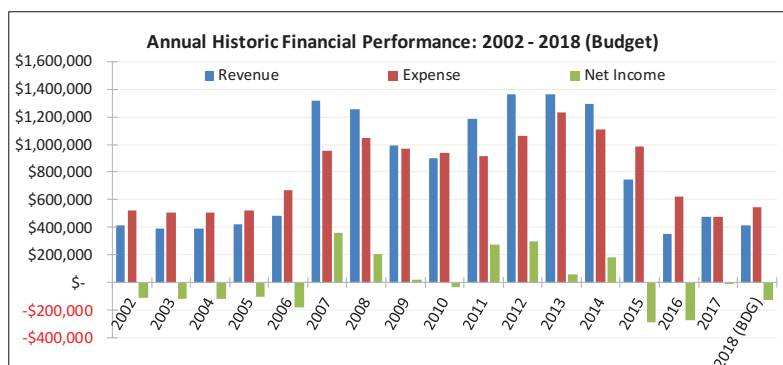


Figure 1: CSEG's yearly historic financial performance showing revenue, expense and net income (i.e. surplus (+)/deficit (-)) from 2002 to 2017. Includes the 2018 budget (BDG) for reference.

Managing Director

As the economy in our country has rebounded fairly well over the last year our industry, and particularly our segment of the energy sector, is still struggling. Several more of our members were relieved of their employment status, while more took this as an opportunity to leave the industry or completely retire. Our membership numbers are still on the decline and no significant growth in registrations for our programs in 2017. Companies and individuals who once supported the society just did not have the discretionary funds to direct our way; be it GeoConvention, continuing education (Doodle Train, Symposium, membership renewals, and sponsorship). In turn, those are the very activities that we rely on for revenue to operate. I totally understand why they couldn't support us, but reality is that is what happened. Now the CSEG was able to further cut expenses to come closer to matching the declining revenues, so this was somewhat positive. GeoConvention was able to put some dollars back into the society but nowhere near the "glory days" of pre 2015. As well, DoodleTrain showed a positive turn, thanks to the support of the CSEG Foundation and by eliminating paper notes with digital. Same goes with the RECORDER, which reduced its editions to seven per year of which six are now digital. Only April's edition is a printed version. Cutbacks in salaries of our two staff members and administration support from the CSEG Foundation all aided a near breakeven situation in 2017. Also, our technical luncheon showed a significant upturn financially: only averaging 110 people per event, yet cost cutting measures saved the program. However, let's be clear. The dollar amount on both sides of the ledger is approximately \$1 million less than in 2014. Simply put: the bleeding was reduced to a slower drip from a jugular gush. It will be difficult at this pace to see much growth in our bottom line, which in turn relays in growth of our programs and new initiatives. The CSEG is in maintenance mode for the foreseeable future until member numbers and corporate support returns. Unfortunately, there is no telling when or if that might occur.

Looking ahead in 2018, the Board of Directors has no choice but to plan again for the same or slightly lesser results, while still hoping the economy and the fortunes of our corporate and individual members improve to a point where they again can participate fully in our core activities. We will plan to continue offering a similar

program as in the past, however it will look different. The Board and administration will be looking more at how to offer better online products. From webinars to newsletters to publications to awareness. The CSEG will further become a digital society. It will eventually be less expensive to participate and likely more efficient, while definitely being user friendly. It will not occur overnight but quicker than you think. Yes, your parents' and grandparents' CSEG is basically becoming extinct. The new digital look of the CSEG is what you can expect going forward. Personally, we at the CSEG definitely talked about how we would look 10-15-25 years from now, knowing the digital world would become more prevalent. I do not think anyone expected change to be as quick as it has been so far. Crisis forces one to swim fast or get eaten by the sharks.

Finally, as I complete my 18th year with the CSEG, I must recognize some key individuals for their support over the past year. Marian Hanna, John Duhault, Ron Newman and Neda Boroumand have been a huge support for me and together we are persevering through all of this change. On the Foundation side, Larry Herd, Ron Larson, Susan Thomson and Neil Rutherford are as dedicated volunteers that you will find anywhere and the CSEG and Foundation are fortunate they work on our side. All are very committed, and along with the many volunteers serving on our committees, are the lifeblood of the CSEG. Our volunteer base is unique among technical and professional societies in today's world. As well, my co-worker Alyssa Middleton has been strength of support for me and works extremely hard for both the CSEG and Foundation. She is a very committed and dedicated employee who is willing to tackle anything. As our industry and the financial environment continue to change it is our commitment to the membership to provide the best service and information possible, while always seeking new initiatives to benefit our membership.

JIM RACETTE

MANAGING DIRECTOR



Once again the Foundation exceeded our expectations both for increasing operating revenues and making do with fewer expenses. This year the Foundation experienced the effects of the continued market downswing, as did many organizations in the Earth Sciences field. Last year, the Foundation board approved a deficit budget year which would have the effect of reducing our overall asset account by roughly \$111,000. Due to the diligent efforts of our committees and volunteers, we expect the actual deficit to be less than \$55,000; an amount that is more than offset by interest and capital growth gains in the CSEGF endowment investments.

With our asset base being so strong, the Foundation Board of Directors specifically elected to continue funding the programs that the Foundation supports in spite of reduced income, so that our services to the public and specifically our students were not adversely affected. The Board will continue to monitor our financial situation and make prudent budgeting and fund allocation decisions while ensuring the continuation of our core programs. This will likely mean continued deficit budgeting for 2018 and perhaps the following year until the industry recovers from the current market troubles.

Who we are

The CSEG Foundation is a *registered Canadian Charitable organization* – the charitable operating arm of the Canadian Society of Exploration Geophysicists. It was initiated in 2003-04 as the brainchild of several CSEG Past Presidents and received charitable status in 2006. It is managed by an independent Board of Directors, is closely aligned with the CSEG and is ultimately controlled by the CSEG. The **Mission** of the CSEGF is: *to encourage and support scientific, educational and charitable activities that benefit geophysicists through the solicitation of contributions aimed at promoting the development of geophysical knowledge, education and public awareness.*

When the Foundation attends public events, career fairs, or conferences for university students, high school science teachers and career counsellors, we strive to make the public more aware of geophysicists' contribution to the well-being of Canadian society. We convey to educators, students and the public our key role in not only the petroleum and mining industries but also in environmental engineering, the mapping of natural hazards, and understanding the Earth beneath our feet. The scientists and support persons in the CSEG are ethical and conscientious stewards of the environment. They help to find and develop the resources essential to our daily lives.

The Foundation is a volunteer-run organization with only a small staffing overhead. Funding to support the Foundation's activities comes from generous donations from the public, members, corporate sponsors and the CSEG itself. Thanks to all who have contributed to this year's success through either your volunteer time or your financial support.

2017 Board of Directors (names in bold are Directors; *designates a CSEG Past President). Each Director's term is nominally three years and candidates may be self-nominated, by the membership or through the nominating committee. Committee Chairs appointed as Directors typically serve on the Board for one year. These are the Directors, staff and committee representatives at the 2017 year-end:

Larry Herd* (Chair), **Ron Larson*** (Vice-Chair), **Nancy Shaw*** (Secretary), **Susan Thomson** (Treasurer, Special Projects Chair), **Neil Rutherford*** (Assistant Treasurer and Governance), **Marian Hanna*** (CSEG President and Representative to the Foundation), **Doug Uffen*** (Outreach Chair), **Doug Bogstie*** (Fund Development Chair), **Neil Orr** (Fund Development Vice-Chair), **Ian Watson** (Scholarships Chair), **Kun Guo** (Travel Grant and Learning Subsidy Chair), **Helen Isaac** (Communications Chair), **Brodie Sutherland** (Earth Science for Society Chair), **Cec Keeping**, Bernd Milkereit (CSEG Distinguished Lecturer Chair), Jim Racette (CSEG Managing Director), Alyssa Middleton (CSEG staff).

This year's highlights

- ▶ **Foundation assets** grew in excess of \$2.1M thanks to the generous donations of our members and corporate supporters and the income generated from our investments.
- ▶ For the 2017/18 budget year, the Foundation Board elected to allocate **\$7,500** of the annual operating funds to specifically support programs for unemployed members under the **Special Projects Fund** committee chaired by Susan Thomson. This is down from **\$18,000** from the previous year.
- ▶ The seventh **Earth Science for Society (ESfS)** on March 19-21, 2017, hosted over 2300 attendees of the public, including 1,238 students from 13 schools and over 350 children from 20 separate youth groups. In 2016, the CSEG Foundation "adopted" ESfS and became the long-term Parent Organization for this self-funding event. Of particular importance in 2017, ESfS received a \$35,000 NSERC PromoScience grant, a \$29,437 Community Initiatives Program project-based grant from the Government of Alberta and a supplemental \$5,000 grant to participate in Science Odyssey which took place May 12-21, 2017. Brodie Sutherland chairs the ESfS committee and is looking forward to the next event on March 18-20, 2018.
- ▶ **Outreach/University Student Outreach (USO)/Schools and Public Outreach** continued to support students in universities and K-12 schools, and to inform educators and the public at large about geophysics and the CSEG while maintaining a close eye on expenses. Doug Uffen chairs Outreach, which is the Foundation's largest committee, accounting for about half of our operating budget outside of ESfS. Outreach sent representatives with informational displays and handouts to teachers' conferences, science and physics conferences, career counsellors' conferences, and

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career fairs. This year, Outreach launched Phase One of their plan to initiate a stronger national online presence with videos and webinars. As of last summer, a total of 54 videos have been linked to our educational resources through the website.

- ▶ We continue to support post-secondary education and students through our **Scholarship Committee's** efforts chaired by Ian Watson. From 47 applications for university scholarships, the Foundation awarded 11 scholarships to students at six universities across Canada. In addition, one scholarship was awarded to a student at a technical institute and two High School students entering a university science program.
- ▶ The Foundation provided **travel grants and learning subsidies** (Kun Guo, chair) to help Canadian undergraduate and post graduate students take courses and attend conferences, seminars and geoscience field trips. In 2017, \$10,000 in funding was provided to assist over 20 recipients in support of travel or registration in events during the 2017 calendar year.
- ▶ In 2017, continued improvements in the Foundation's web presence and ongoing communications support was provided by the **Communications Committee** chaired by Helen Isaac.
- ▶ Our 2017/2018 **Distinguished Lecturer** is Doug Schmitt, who is giving his talk entitled "Adventures in Scientific Drilling: A Geophysicist's Perspective" to various different universities and institutions across Canada, wrapping up in April 2018.
- ▶ The **Geophysical Industry Field Trip (GIFT)**, of which the Foundation is a Platinum sponsor, took over 40 students from eight different universities to various host companies, where they learned about operations, processing, interpretation and other elements of applied geophysics.
- ▶ Our **Fund Development Committee**, chaired by Doug Bogstie, has been working diligently to finalize the details of our new **Planned Giving** campaign "Preserving the Future of Geophysics in Canada", which launched in January 2017 and have secured their first two participants.

In the big picture, the **CSEG Foundation's ongoing success** is attributable to several things:

- ▶ A **strong Board of Directors** with various levels of experience, a good set of Governance procedures, and advice and input from experienced and engaged members.
- ▶ **Outstanding volunteers**, some who have contributed for many years and some who are brand new, creating a dynamic mixture of experience, enthusiasm, energy and new ideas.
- ▶ **Excellent financial support** from our donors, including a number of very significant individual donations.

The CSEG Foundation Board, advisors and staff are a hard-working and dedicated group of professionals who volunteer their time and

expertise to manage and lead this multi-faceted organization. At the heart of the Foundation are the innumerable volunteers who work tirelessly for the various committees. I want to pass on my personal thanks to all of the Foundation contributors (both financial and volunteer and staff) for all they have done to make this an extremely successful venture, furthering the geophysical cause and vision into the future. This will be my last year as Foundation Chair and I want to welcome Ron Larson as my successor – an extremely capable "captain at the helm".

LARRY HERD

CSEG FOUNDATION CHAIR

COMMITTEE REPORTS

Finance

SUSAN THOMSON, TREASURER AND DIRECTOR

NEIL RUTHERFORD, ASSISTANT TREASURER AND DIRECTOR

This was again a challenging year for the CSEG Foundation in terms of fund raising and sponsorship for our programs, and therefore the CSEG Foundation Board was cautious and judicious when planning the budget for the 2017 fiscal year. Recognizing that one role of the CSEG Foundation is to help maintain programs through tougher times, the Board and the committees worked to balance the need for continued funding of our charitable programs while controlling expenditures. After much deliberation, the Board approved a deficit budget of \$111,328 for 2017.

Despite these challenging years, the endowment has continued to grow, through funding and interest, to more than \$1.6M. With interest rates on GICs having been at historic lows, it was decided that the Calgary Foundation could yield better returns on our investments, so in late 2017 another \$100,000 was invested, bringing our principal investment to \$690,000.

The CSEG and the CSEG Foundation continue to have a close and intertwined relationship. In recent years, the CSEG has seen a drop in revenues available to fund its programs and operations, and has been unable to support the Foundation financially as it has done in previous years. The CSEG Foundation, in turn, is continuing to support the CSEG Executive by funding a portion of the CSEG office expenses; a legitimate and reasonable undertaking given the current climate.

With great fiscal restraint and oversight, the CSEG Foundation is projecting a deficit of \$55,000 for 2017, which is approximately \$56,000 less than the approved budget. It is with the ingenuity and efforts of our committees that we are able to continue our programs with reduced funding. At the time of this report, the Foundation is likely to have year-end assets of about \$2.16M (up from \$2.092M in 2016).

Despite the challenges that the Foundation has had, it has been an enriching experience and the Finance Committee would like to thank the numerous Chairs and volunteers for their hard work at curbing spending while maintaining the integrity of the CSEG Foundation's programs. The Finance committee is grateful for the amazing work of a team of individuals, specifically Spryng Kubick, Neil Rutherford, Murray Hunter, Adrian Smith, Jim Racette and Alyssa Middleton. Many thanks for your continued enthusiasm and dedication to the CSEG Foundation.

Fund Development

DORIS ROSS, CHAIR
(SUCCEEDED BY **DOUG BOGSTIE, CHAIR & DIRECTOR**)

NEIL ORR, VICE CHAIR

The Fund Development Committee (FDC) encountered another challenging year in 2017. The committee was, however, thankful to those members who were able to once again help us support a variety of worthwhile activities. Total contributions reached \$102,415.00, which was down from the amount collected in 2016 (\$159,877.00).

The 2017 year was a transition year for FDC with the previous Chairman, Doris Ross, accepting a career opportunity in Australia. Neil Orr remained behind to work with the Foundation, with Doug Bogstie joining him. The twin goals of increasing the Endowment as well as either funding CSEGF endeavors or contributing to CSEGF educational activities remained in place. Member donations and interest accumulated from CSEGF assets remain as our two sources of income.

Derek Fraser of Fraser Philanthropic Advisors remained a part of the team that will take the Foundation to the next level. The Planned Giving program allows those who have appreciated their time in our industry to give back a contribution within their estate. The Foundation is extremely pleased that we have secured out the first two participants in this very worthwhile initiative. This initiative will remain a top priority for the FDC in 2018.

Aside from fundraising, the committee was active in other areas. Our inclusion within the CanadaHelps portal allows donors easy access to facilitate their contribution. We still retain the ability to donate from the CSEG web site. Additionally, the FDC completed work on a Gift Acceptance Procedure that will be referenced when any uncertainty surrounds a possible contribution. Under no circumstances will the FDC or Foundation undertake any activity that would bring dishonour to our society. The 2018 year will see a program to approach newer members to begin a personal program of giving back.

The Foundation's financial picture is positive. Like everything else in life though, we are in a transition period where some members are moving on while new members are joining our society. To those

moving on after what was hopefully a rewarding career, we appeal to you to consider making a tax-deductible contribution to our Foundation. To those joining, we challenge you to grab the torch and begin a program of giving to help your career and sustain geophysics for those who will follow you.

Special Projects Fund

SUSAN THOMSON, ACTING CHAIR AND DIRECTOR

PERRY KOTKAS, CHAIR

The Special Projects Fund (SPF) was created in April of 2016 in order to "support members of the geoscience community during the current economic downturn on projects outside the annual budget of the CSEGF". Special consideration is given to under-employed and unemployed CSEG members.

2017 SPF Committee: Chair: Perry Kotkas (retired June 2017)

Members: Susan Thomson, Doris Ross (retired May 2017)

2017 SPF Spend: ~\$14,000

The Special Project Fund primarily supported under-employed members to attend three major events: Geoconvention, the CSEG Symposium, and the CSEG Doodletrain.

To access support from the CSEGF Special Projects Fund please contact the CSEG office for more information and to be routed to the appropriate Foundation Committee member. Make sure you allow enough time for your project to be reviewed and approved by the CSEGF Board (one meeting, monthly), and for enough time to properly advertise the project for which support is requested.

Outreach

DOUG UFFEN, CHAIR AND DIRECTOR

ADRIAN SMITH, VICE CHAIR

Frugality continued to be the theme throughout the year for the Outreach committee, which includes University Student Outreach, public outreach and schools outreach. Operating with a \$70,000 expenditure budget in 2017, the Outreach and USO team of volunteers managed to execute their collective programs with significant cost savings. As this is being written in early February, budget projections anticipate that the committee will be able to execute their programs this year with cost savings of over 10%, perhaps closer to a 15%, below budgeted amounts. Kudos go out to the organizing committee and all the volunteers for executing this program so cost effectively and continuing to over-deliver with expenditures below budgeted amounts. The committee's focus was to mitigate airplane travel along with hotel and meal expenditures as much as was reasonably possible, using local volunteers where we can. To this end, the CSEG Executive voted in January of 2018

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to have the Ambassador's program transferred back to the CSEG Foundation under the auspices of the Outreach Committee. While University Student Outreach (USO) is endeavoring to have area representatives at most Canadian universities across the country, the Ambassador's program essentially does the same thing outside of university circles with people within industry (not just the oil patch). We hope to use the physical addresses of these additional volunteers as nodal points for local initiatives such as teacher conferences and career fairs, thus expanding our network across Canada, and enabling us to promote geophysics even better and for less cost. Both programs will be used to support and promote ongoing initiatives such as Scholarships, the Canadian Distinguished Lecturer, the Geophysical Industry Field Trip (GIFT) and the like.

Outreach and USO have been moving our messaging on-line, using the website and the internet to reach people beyond our current geographically constrained reaches. It is not practical to attend a career fair in Goose Bay or Prince Rupert (the expense would be significant), yet by using the CSEG website we can do more to promote geophysics. The committee worked hard during the last couple of years to identify quality on-line videos discussing various natural phenomena of a geophysical nature. As of last summer, a total of 54 videos have been linked to our educational resources through the website. As part of Phase 2 of our on-line initiative, the Outreach Committee has initiated some promotional awareness communication material through the CSEG Twitter account and the CSEG Facebook page to notify followers of these educational videos. The intent is to promote aspects of geophysics, heighten awareness of the profession and increase website traffic by students, the public and teachers. While the Outreach committee has been moving our message on-line, personal interaction is still an essential part of making people aware of our science. We just need to do this cost effectively, hence the addition of the Ambassador's program to our committee's efforts.

Our message is also changing. We are trying to promote geophysics as the science of Mother Earth, encompassing the atmosphere, the hydrosphere and the lithosphere. In turn, this can lead into careers such as mining, environmental, climatology, earthquake prediction, volcanology, and the like, not just in the oil and gas industry.

In 2016, our Outreach efforts included the Challenge Bowl, along with the regional qualifier rounds at regional university conferences. We continued to support GIFT as one of our core programs as it is well attended every year. Regrettably, we attended fewer teacher conferences and career fairs due to budget restrictions but hopefully our on-line efforts will facilitate reaching out to even more people in the future.

Thanks goes out to the entire Outreach committee team. Adrian Smith was our financial person for 2016 and a special thanks goes

out to him for keeping track of things financially. Adrian has now stepped down from this position but has taken on the role of Vice Chairman for Outreach / USO and will succeed me in June 2018 as Chairman. The committee will be in good hands. Many thanks goes out to Laura Osorio (USO), Sam Quiroga (Public Outreach) and Alessandro Carducci (Schools Outreach) for all of their efforts in executing our 2017 program. All of this is made easier by Alyssa Middleton who helps us tremendously throughout the year.

Earth Science for Society (ESfS)

BRODIE SUTHERLAND, CHAIR

GLENN MALCOLM, VICE CHAIR



March 18-20, 2018 – <http://esfscanada.com/>

Earth Science for Society (ESfS) is an annual exhibition that demonstrates how the Earth Sciences play a critical role in our society. The exhibition is organized by a committee of over 30 volunteers who work throughout the year to ensure a successful event. The exhibition relies upon the support of over 90 enthusiastic volunteers covering 200 shifts and accounting for over 700 volunteer hours. Thirty-three exhibitors participated in the March 19th-21st, 2017, exhibition with stimulating interactive displays for youth and the public. In 2017, the ESfS exhibition hosted over 2,300 attendees, including 1,238 students from 13 schools and over 350 children from 20 separate youth groups. Each year the program has expanded; 2017 saw a record number of 915 public members attend the exhibition. Our 19 generous funders provided \$124,987 in financial support. Of particular importance in 2017, we received a \$35,000 NSERC PromoScience grant for ESfS 2017 and a supplemental \$5,000 grant to participate in Science Odyssey which took place from May 12-21, 2017. We were also awarded a \$29,437 Community Initiatives Program project-based grant from the Government of Alberta. In-kind donations and sponsorship totalled close to \$15,000 from 25 organizations. This allowed ESfS 2017 to maintain a break-even budget.

In 2018, the 8th annual ESfS exhibition will be held March 18th to 20th. We have 1,426 students and 369 youth group participants signed up and we are expecting 40 exhibitors. This year, the exhibition will be open Monday night from 6-9 pm to reach out to even more people interested in learning about the Earth Sciences!

Scholarship

IAN WATSON, CHAIR AND DIRECTOR

CRAIG MOSHER, SENIOR TRUSTEE

ROB McGRORY, JUNIOR TRUSTEE

2017 was another successful year in the 48-year history of the CSEG Foundation's scholarship program.

In 2017, the scholarship committee was able to allocate \$23,000 to 12 post-secondary students across Canada. In addition, we awarded two \$500 scholarships to high school students entering a science-based university program in the fall of the same year.

The committee would like to acknowledge the individuals, oil and gas operating companies, service companies, the Rob Shugg Memorial Fund, the CSEG Doodlespiel and DoodleBug, and the CSEG Foundation for their backing. Thank you all for your faithful generosity. The scholarship program relies on your contributions and the recipients of funds are extremely grateful.

We received a record number of 47 applicants for university geophysics scholarships (35 graduate, 12 undergraduate). The committee awarded 11 scholarships of \$2,000 in this category to students at six institutions across Canada. We also awarded one scholarship of \$1,000 in the technologist category.

University student and technologist scholarship recipients in 2017 were:

RECIPIENT	INSTITUTION	SPONSOR
Aamna Asad Sirohey	Western University	CSEG Foundation
Callum Walter	Queen's University	"In the Rings" Doodlespiel Curlers
Ederson Villamizar	Memorial University of Newfoundland	Athena Resources
Hilary Chang	Memorial University of Newfoundland	Imperial Oil
Jorge Monsegny Parra	University of Calgary	Repsol
Kevin Lugtu	University of Calgary	Paramount Resources
Oday Daboor	Queen's University	CSEG Doodlebug Golfers
Ruhollah Keshvaridoost	McGill University	Rob Shugg
Scott Keating	University of Calgary	TGS
Tess King	University of Toronto	CSEG Doodlebug Golfers
Tyler Spackman	University of Calgary	Andreas Cordsen
Snehpreet Kaur	Southern Alberta Institute of Technology	CSEGF Scholarship Committee

High school recipients of scholarships, entering into university science programs in the fall of 2017 were:

RECIPIENT	INSTITUTION	SPONSOR
Basel Moukaskas	University of Alberta	Perry & Karen Kotkas
Lauren Coulombe	University of Calgary	Perry & Karen Kotkas

Travel Grants and Learning Subsidies

KUN GUO, CHAIR AND DIRECTOR

PAMELA BUCHER, VICE CHAIR

The role of the Travel Grants and Learning Subsidy (TGLS) program is to provide student and professional CSEG members with financial support to develop and gain awareness, knowledge, and skills in geoscience. In 2017, Andreas Cordsen has once again supported the TGLS program through a sponsorship commitment to the CSEG Foundation. Thank you Andreas; our committee sincerely appreciates the continued generous support.

The TGLS committee strives to provide easily accessible funding to our applicants and to build and maintain relationships with our numerous recipients. In turn, we ask our funding recipients to provide written summaries of their educational experiences, which are published in CSEG publications to share with the CSEG community.

In 2017, the CSEG Foundation Travel Grant and Learning Subsidy committee was granted a budget of \$10,000, despite the economic downturn. This allowed the TGLS program to grant, as of this report, up to \$8,000 in funding for 20 applicants to travel or participate in events worldwide during the 2017 calendar year. We are proud to have been able to assist professionals as well as student members of the CSEG from the following universities: McMaster University, Mount Royal University, Western University, University of Alberta, University of Calgary, Université Laval, University of Manitoba, University of Saskatchewan, University of Toronto

The TGLS committee is focused on continuous improvement to ensure that funding is effective and easily accessible, and that our guidelines are flexible in accommodating the needs of both individual and group applicants for events in Canada and around the world. The TGLS committee has requested a budget of \$8,000 for the 2018 calendar year and will be undertaking efforts to increase our exposure with un- and under-employed CSEG members, with a focus on providing funding for maintaining professional skills and development.

The 2018 TGLS Committee would like to continue developing the relationship with university student groups and facilitating their applications for annual events (GeoConvention, GIFT, SEG Annual Meeting, geophysical field schools). We propose the TGLS yearly

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budget be drafted based on the number of delegates student groups are planning to send, so the CSEGF can plan a more realistic budget for these groups. The 2018 committee would also like to reinforce partnerships educational and professional development initiatives, existing or new (CSEG Emerging Professionals Program, Junior Geophysicists Forum, etc), to overcome financial barriers and promote continuing geoscience education.

The CSEG Travel Grant and Learning Subsidy program continues to provide CSEG members with opportunities to learn about, develop, and share geoscience in a variety of ways. We would like to extend our sincere gratitude, on behalf of our committee volunteers and all of our funding recipients, to the CSEG Executive, the CSEG Foundation, as well as the CSEGF Outreach, CSEGF USO, and CSEG Symposium committees for promoting the program and providing support. We would also like to thank our numerous applicants for continuing to make this program a success.

Communications

HELEN ISAAC, CHAIR AND DIRECTOR

The Communications Chair has the responsibility of coordinating and editing communications between the Board and CSEG members. The Foundation pages on the CSEG website keep the membership informed about activities such as scholarships, the mentorship program, GIFT, the Travel Grant and Learning Subsidy, and the CDL tour, and allow access to online application forms. The website also includes up-to-date information about the board of directors, the activities we support, annual reports and audited statements, Investment Policy, Investment Plan, Governance, and Bylaws.

The revamped webpages on Donating to the Foundation inform members about how they can help the Foundation by donations or Planned Giving, and provide a link to an online donation form.

The Outreach pages of the website were completely reworked to have a modern look and easy access to information. The Outreach committee deserves accolades for this achievement.

A major avenue for the Foundation to communicate to the membership is through the Recorder. In 2017 the on-line Recorder published articles on activities which receive funding from the Foundation, such as Earth Science for Society, Seismic in Motion for Students, the Mentorship program, scholarships, and GIFT.

The Communications committee also assists other committees to edit and finalize documents and letters.

Canadian Distinguished Lecturer

BERND MILKEREIT, CHAIR

DOUGLAS SCHMITT, 2017/2018 DISTINGUISHED LECTURER

The Foundation operates the national CSEG Canadian Distinguished Lecture Tour, which is an annual event that started in 2005. Many post-secondary Geoscience departments and research institutions across Canada host an industry or academic expert who delivers a presentation highlighting topics of current interest.

The 2017/2018 Distinguished Lecturer is Doug Schmitt, a Professor of Geophysics and Physics at the University of Alberta. Doug leads the Experimental Geophysics Group, a hands-on team that conducts a variety of field and unique laboratory rock physics and geomechanics experiments. Notably, numerous scientific drilling projects have sought out this expertise and his team has now worked on over a dozen projects on six continents in environments ranging from the equator to both the Arctic and Antarctic. Doug is a graduate of the University of Lethbridge and the California Inst. of Technology, and has worked as an exploration geophysicist in Calgary and as a postdoctoral researcher at Stanford University. He recently completed two terms as a Canada Research Chair Tier 1 in Rock Physics. As the 13th CSEG Distinguished Lecturer, Doug is presenting his talk "*Adventures in Scientific Drilling: A Geophysicist's Perspective*". For over 15 years, the Experimental Geophysics Group at the University of Alberta has contributed Geophysics, Rock Physics, and Geomechanics expertise to a wide variety of scientific drilling programs reaching all of the continents save South America. Broadly, Doug's research has focussed on three themes: 1) Geomechanics related to crustal stress determination and faulting (Alberta, Antarctica, New Zealand, India, Idaho), 2) Geophysics of Large Meteorite Impacts (Ghana, Yucatan, Alberta), and 3) Determination of seismic anisotropy from borehole and laboratory studies (Finland, New Zealand, Alberta). The local community hosting the CDL event selects the theme based on their interest. However, a task of Doug's lecture is also to inspire prospective new geoscientists! So, each of these talks will also describe on-the-rig experiences with specific drilling programs, presenting not only the science but also giving impressions about what it is like to work with great groups of diverse and highly collaborative geoscientists on tense, time and resource limited projects. To date, he has given his presentation at 18 different venues and a further three presentations are scheduled for the spring, wrapping up with the CSEG Luncheon (Calgary) in June, 2018.

Canadian Journal of Exploration Geophysics



The Canadian Journal of Exploration Geophysics (CJEG) is the peer-reviewed publication of the Canadian Society Geophysicists. CJEG has a citation rating and has been in existence since 1965. The journal is available to all CSEG members through the CSEG web site, and after 3 years of initial publication, CJEG issues are open to the non-members of CSEG. Publication of peer-reviewed scientific papers is in line

with the SEG goal “to promote the science of geophysics”. There are normally 1-2 CJEG issues per year containing a total of 6-12 peer-reviewed scientific papers.

Readers of CJEG will notice that the 2017 edition has only 2 papers. The reason for this is primarily financial. Journal Co-Editors, Larry Lines and Satinder Chopra were notified that the CJEG’s budget was reduced to zero for the 2017 financial year. Budget cutting was considered necessary due to very difficult economic times in the oil patch, accompanied by a concomitant large decrease in 2017 CSEG revenues. However, the CJEG Editors believed it was ethical and necessary to publish those papers that had been already been accepted for publication earlier in the year.

The editors were opposed to placing the journal into dormancy. This action (inaction) was previously done in 2000, and unfortunately this dormancy lasted for over a decade! It was not until 2011 that CJEG was revived through the efforts of the editors. Given the time and efforts required for a restart, dormancy was not considered a desirable option.

Hence, the editors decided to keep publishing the journal, albeit at a much reduced level. As with the 2016 issue, 2017 copy editing costs will be supported through donations to CSEG Foundation. Long term solutions may involve reinstating CJEG as a budget item, covering costs through financial donations, or the implementation of page charges. These and other alternatives continue to be discussed. For the time being, we will continue to publish CJEG at a reduced level, with the hope that the CSEG financial situation will improve and that we can return to the previous rate of publication. We hope that there will be contributing authors and readers of the CJEG for many years to come.

Associate editors for 2017 were Patrick Daley, Kris Innanen, and Sven Treitel.

LARRY LINES AND SATINDER CHOPRA
CO-EDITORS, CANADIAN JOURNAL OF EXPLORATION GEOPHYSICS

Digital Media (DMC)

In 2017, the DMC continued to work on finding its place and responsibilities within the CSEG with respect to Social Media within the CSEG and the Recorder. The coordination of understanding the requirements in social media of the various committees has been a challenge that we continue to work on. As well, communicating to the various committees that the DMC is there to help their social media endeavours and not hinder them continues to be a work in progress. We have been working to improve the use of Linked In in attempts to get more members involved online. As well, we are working on ways to improve our hits on both the Recorder and CSEG main websites by improving the content available. Assuming we do not bring back the paper Recorder, In the future we will be depending on advertising revenue to come from our website ‘hits’. The more activity we have on our websites, the more potential revenue we can generate for the CSEG.

Thanks to the following people for participating on the committee this year: Jocelyn Frankow, Jonathan Schneider, Kurt Mulhall, Corey Hooge, Marc Boulet, and Marko Mah. Thanks also to web-master Jeremy Sherry for his good advice and support.

JASON SCHWEIGERT, CHAIR

Chief Geophysicists Forum

The Chief Geophysicist Forum met four times in 2017, in March, June, September, and December. The meetings in 2017 were designed to build on the subject matter of the 2016 meetings, and again this year we are encouraging stronger discussion and interaction amongst the membership.

The goal of the group this year was stated as *“Promote discussion that invites members to advocate for the application of geophysics that drives measurable business benefits.”* At each meeting, a main topic was presented and then the group discussed that topic while focusing on overall goal. Topics covered included key issues facing producers, the value of geophysics in today’s industry, differing challenges faced by producers and service providers, and the use and future of technology by geophysicists.

In addition, the meetings continue to present a valuable opportunity to receive updates from groups associated with geophysics in Canada, including APEGA and CAPP, as well as updates by CSEG executive and leaders of CSEG initiatives that run during the year.

JAMES LAMB
2017 CGF CHAIR

Emerging Professionals Program (EPP)



1. Program Overview

The CSEG Emerging Professionals Program is a national program sponsored by the CSEG Foundation and the Canadian Society of Exploration Geophysicists (CSEG) and will be administered under CSEG Member Services. It aims to promote the CSEG and assist the younger geophysical community across the country through a variety of events and support.

The target audience is primarily the CSEG emerging professional membership and also includes professionals, local geoscientists and potential CSEG members.

An emerging professional is defined as a person who has graduated from a post-secondary institution and is either currently employed, looking for employment or has an interest in geophysics and/or geosciences but has not yet reached APEGA professional status.

EMERGING PROFESSIONALS PROGRAM, CSEG AND CSEG FOUNDATION MISSION STATEMENTS

Emerging Professionals Program Mission Statement: *To encourage and promote the development of young professionals' knowledge, skills and attributes within the CSEG through a variety of educational, networking, and employability skills in hopes of helping develop tomorrow's geoscientists today.*

CSEG Mission Statement: *To increase awareness of and fund activities towards education in the science of geophysics and earth science through the operation of a number of very worthwhile activities in the field of geophysics.*

The Mandate of the Canadian Society of Exploration Geophysicists is to promote the science of geophysics, especially as it applies to exploration, and to promote fellowship and cooperation among those persons interested in geophysical prospecting.

CSEG Foundation Mission Statement: *Our mission is to encourage and support scientific, educational and charitable activities that benefit geophysicists through the solicitation of contributions aimed at promoting the development of geophysical knowledge, education and public awareness. Based in Calgary, we are a Canadian foundation with initiatives all across Canada.*

EMERGING PROFESSIONALS PROGRAM OBJECTIVES AND GOALS

1. Gain exposure for the CSEG with (and for) emerging professionals, the CSEG membership across Canada and the general geoscience population
2. To provide educational support to members
3. To collaborate with other societies, namely SEG, CSPG, AAPG, SPE, KEGS, CAPL, and the CWLS as appropriate

4. To support existing CSEG committees
5. To act as the Canadian operational arm of the SEG EPIC program
6. To ensure volunteers act in a responsible, ethical and financially prudent manner
7. To foster and embody the values of the CSEG, including teamwork
8. To create a sense of support and community amongst young professional's within the CSEG where members can learn from each other's experiences, share industry knowledge and insight
9. To have fun
10. To advertise & promote the CSEG and enhance our national status and representation by a variety of appropriate means
11. The Emerging Professionals Program will run from September 1st to August 31st annually

EMERGING PROFESSIONALS PROGRAM COMMITTEE MEMBERS

Hassan Odhwani
 Elizabeth Ramsey
 Stephen Kotkas
 Brian Schulte
 Kyle Dreher
 Karl Mome
 Chau Huynh
 Chris Bird
 Khevyn Gormley
 Alex Shrake

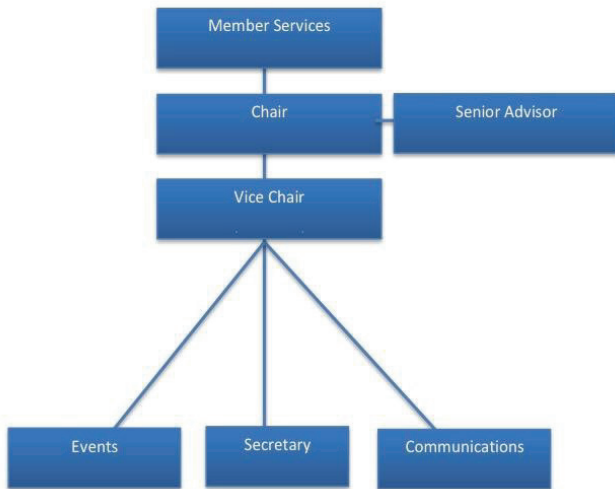
1. Emerging Professionals Program Chair: Detailed in Section 3
2. Emerging Professionals Program Senior Advisor
3. Emerging Professionals Program Vice-Chair
4. Emerging Professional Committee members at large
5. CSEG Office staff

CSEG EMERGING PROFESSIONALS PROGRAM BUDGET CONSIDERATIONS

- Current estimated cost is \$1000*
- Budget is for multiple events throughout the year which will highlight and focus on:
 - technical (KSAs**)
 - soft skills (KSAs)
 - employability (KSAs)
 - networking (KSAs)

* Funds will be solicited to industry as needed

** Knowledge, Skills, and Attributes



2. Emerging Professionals Program Committee

CHAIR CURRENT: HASSAN ODHWANI, INCOMING: ELIZABETH RAMSEY

Emerging Professionals Program Committee Chair Primary Responsibilities

- ▶ To chair Emerging Professionals Program committee
 - Organize and document meetings
 - Recruit committee members as needed
 - Track budget allocation and needs
- ▶ Liaise with other societies as listed above in Program Objectives
 - Be primary liaison with related CSEG committees specifically DoodleTrain, JGF, scholarship committees and others as appropriate
 - Establishment of a process to organize & operate partnered events with other societies and CSEG committees
- ▶ Be primary contact and resource for Emerging Professionals Program
 - Maintain up-to-date master list of contact info of committee members, sister societies and other CSEG committees
 - Compile and maintain Emerging Professionals Program Guidebook
 - Clarify roles and responsibilities for all parties
 - Track potential complementary OR conflicting events such as the CDL, CSEGF Outreach events, SEG tours and other societies young professional events

- ▶ Coordinate Emerging Professionals Program promotional materials and advertising
 - Assist the CSEG office with the Emerging Professionals Program poster / brochure, CSEG website, CSEG e-newsletter and other forms of promotion as needed
- ▶ Reports to CSEG Executive via Member Services
- ▶ Emerging Professionals Program Committee Vice-Chair Primary Responsibilities. Current: Elizabeth Ramsey, Incoming: TBD
- ▶ Act as and complete tasks of chair in absence and support as needed
- ▶ Advertise the Emerging Professionals Program to the general CSEG population via luncheons, the RECORDER and other means
- ▶ Act as a Communications Director for all external information

3. Emerging Professionals Program Committee

Emerging Professionals Program Committee Primary Responsibilities

- ▶ Ensure alignment and communication between all CSEG committee and programs
- ▶ Assist and accept responsibility as designated by Emerging Professionals Program Chair
- ▶ Provide support and guidance to events and activities
- ▶ Ensure all meetings are recorded and archived for future reference and meeting minutes

4. Emerging Professionals Program Senior Advisor Current: Brian Schulte*, Stephen Kotkas

Emerging Professionals Program Senior Advisor Primary Responsibilities

- ▶ Provide information, present alternatives, encourage responsibility, support creativity, and challenge members of the Emerging Professionals Programs (EPP)
- ▶ Being involved in planning projects, events, or programs for the Emerging Professionals Program
- ▶ To be available to attend the regular meetings and events

**Brian Schulte to transition out – replacement TBD*

5. 2017 Activities

Petrel Velocity Modelling Workshop

What: The Petrel Velocity modelling Workshop with Schlumberger. This Workshop gave an understanding of how velocity models are built, quality controlled and corrected. In this workshop, participants

Emerging Professionals Program (EPP) Continued from Page 21

were introduced to different velocity modelling approaches, such as well velocity estimation, the nature and modelling of seismic velocities and surface based using Petrel. Furthermore, they learned how to convert different data from one domain to the other using the created velocity model.

When: February 8th, 8:30am-4:30pm

Where: Schlumberger Office – 200, 125 9th Ave SE

Seismic Correlation and Inversion with CGG Geosoftware

What: The Well – Seismic Correlation and Inversion of a Seismic Volume workshop with CGG Geosoftware was taught by Graham Carter. This session comprised hands-on application of well- seismic correlation and the inversion of a seismic volume. Attendees learned about the steps required for inversion, the significance of the inversion background model and the seismic wavelet, together with how to QC inversion results.

When: March 23rd, from 1:00pm to 4:00pm

Where: CGG Geosoftware Office (715 – 5 Ave SW)

The Speaker Effect with Julie Truong

What: The Speaker Effect workshop, delivered by Julie Truong, focused public speaking. This full day interactive workshop helped participants build on different skills related to public speaking developed around areas of execution, content and design. She touched on presenting technical material, as well as technical instruction. Participants felt comfortable and relaxed in a small group of 10 while working on building confidence, storytelling and remembering key presentation points.

When: April 12th, 9:00am to 4:00pm

Where: Nexen Theatre (801 – 7 Ave SW)

Intersociety Networking event TTT

What: SPE and the AAPG societies hosted Thirsty Third Thursday – St. Paddy's Day Edition at CRAFT and have generously invited the CSEG-EPP members due to our joint efforts and collaboration with our sister societies. Admission and appetizers were FREE courtesy of SPE and AAPG. EPP did not contribute financially for this event.

When: March 16th, from 5:30pm to 8:00pm

Where: Craft – 345 10th Ave SW

Community Cleanup, An Earth Day Initiative

What: Community cleanup is one way to exhibit how the geophysical community gives back and demonstrates that we are all

environmentally conscious. This will be the inaugural year for an event as such, where, along with the Edgemont Community, we will be cleaning along a pathway

When: Saturday April 22nd, 10:00am to 12:00pm

Where: Check-in at the Edgemont Community Centre

Who: CSEG Members, friends, & families

Intersociety Networking Event

What: Panel format discussion took place where CEO of Questerre moderated. The event was in collaboration with SPE, AAPG and YPE.

Where: Bennet Jones office – Bankers Hall

When: May 25th at 5pm

Aspects of the Deconvolution Method with Signature Seismic

What: This technical lunch session discussed deconvolution and all things related.

When: May 30th, 12:00pm to 1:00pm

Where: Nexen Theatre (801 – 7 Ave SW)

Junior Geophysicists Forum

What: This is the second year where the CSEG-EPP and the CSEG-F Mentorship committees joined forces to organize The Junior Geophysicists Forum (JGF) event on Wednesday October 4th at Cenovus' Odd Fellows Hall. The theme of the event was "The future of Energy" featuring a diverse panel of a geophysicist, geologist, financial analyst and an academic:

- ▶ Dr. Kris Innanen (Professor at the UofC)
- ▶ Amanda Hall (Geophysicist at CNRL)
- ▶ Craig Dunn (Geologist at Borealis)
- ▶ Alisha Nayani (Analyst at RBC)

A recording of the panel discussion can be viewed on the CSEG website, <https://cseg.ca/social/jgf>. Following the panel presentation attendees' network and carried the conversation further, discussing the evolution of our science. This event truly demonstrated the unique, tight knit nature of the geophysics community. Attendees connected with established geophysicists keen to offer mentorship and guidance. Students and young professionals were grateful for the honest and open discussion, outlining the importance of their skills and the many options available at a time when careers in Oil and Gas are difficult to obtain and maintain.

LIST OF SPONSORS:

Cenovus:	Venue	Ikon Science:	\$500
Explor:	\$1500	Trish Mulder:	\$250
LXL:	\$1000	ESG:	\$250
Pulse:	\$750	Seisware:	\$200
Katalyst:	\$500	Qeye Labs:	\$200
Earth Signal:	\$500		

Where: Odd Fellows Hall

When: October 4th, at 4:30pm

Machine Learning for Automated Facies Classification with Paradigm

What: This workshop illustrated advances in Artificial Neural Network (ANN) based seismic facies classification system. Focus was on waveform classification and rock type classification.

Where: Paradigm Geophysical Office, 125 – 9 Ave SE

When: November 22nd, from 9am till 12pm

Intersociety Holiday Networking

Held jointly with the SPE and AAPG, this is our 4th annual inter-society networking event. Proceeds of this event go to the Calgary Food bank. Usually 200+ people are in attendance. Participants participate in networking activities, bowling, and industry discussion.

Where: National on 10th

When: December 14th, at 4:30pm

Volunteering at the Calgary Drop Inn Center

The EPP initiated a bi-monthly volunteering event at the Calgary Drop in Center with assistance from the University of Calgary EAGE Student Chapter. The goal of this event is to promote a supportive environment within the CSEG and within our community.

Participant's network, share experiences and advice while gaining firsthand experience of the daily challenges the less fortunate face, and helping to improve their situations. We plan to continue these volunteering events on a bi-monthly basis into 2017 and beyond.

Where: Drop Inn Centre

When: Supper serving: February 15th, June 14th, August 16th, October 23rd

Lunch serving: August 31st, October 3rd, November 9th, December 14th

6. 2018 Activities Tentative Event Calendar

Following are events which will be planned in the year of 2018. Dates and venues are yet to be determined:

- ▶ Inversion course
- ▶ Machine learning
- ▶ Migration theory
- ▶ Networking event
- ▶ Velocity model building (levels 1 and 2)
- ▶ Advances in fiber optics and the oil and gas industry
- ▶ Community cleanup
- ▶ JGF
- ▶ Intersociety networking event

JEFFREY CALVERT, VICE CHAIR

Microseismic User Group

Several times a year, the Microseismic User Group (MUG) provides a lunch hour talk touching on the microseismic side of geophysics. From oil and gas operators to industry regulators, service providers to university professors, the MUG provides a forum for discussion of microseismic challenges from all angles of the oil and gas industry. Originally developed in 2012, the committee is composed of microseismic enthusiasts Shawn Maxwell, Paige Mamer, Hoda Rashedi, and Johnny Wentzel.

2017 was another great year for the MUG, with an impressive lineup of seasoned microseismic users, providers, and researchers. The MUG stage was fortunate enough to host speakers from around the globe with keen insights to the ever-evolving realms of microseismic and induced seismicity. The presentations were broken down into three talks on downhole microseismic monitoring, talks on surface microseismic and induced seismicity monitoring, and an annual update from the Alberta Energy Regulator (AER).

The MUG committee would like to thank Canadian Discovery and Halliburton for graciously hosting the MUG through 2017. The committee would also like to thank Nexen for providing the venue for the final MUG talk of 2017, and we hope to continue using this space into 2018.

2017 MUG PRESENTATIONS:

1. **January 30, 2017** – Ali Mahani, *Fluid Injection and Seismic Activity in the northern Montney Play, British Columbia, with Special Reference to the August 17, 2015 Mw 4.6 Induced Earthquake*
2. **February 23, 2017** – Shawn Maxwell, *Quality Control During Microseismic Reprocessing: Utilizing Synthetic Seismograms to Validate Result*
3. **June 8, 2017** – Natalia Verkhovtseva, *Utilizing Hybrid Array to Distinguish between Hydraulically Connected (Wet) and Stress Induced (Dry) Microseismic Events*
4. **November 1, 2017** – Ryan Schultz, *Hydraulic Fracturing Completion Volume is Associated with Induced Earthquake Productivity in the Duvernay Play*
5. **November 16, 2017** – Kit Chambers, *Monitoring in the Montney Formation, N.E. British Columbia with a Sparse Surface Network: Moment Tensor Analysis Implications*
6. **December 12, 2017** – Jim Rutledge, *Using precise source locations and repetitive source mechanisms to interpret the generation of microseismic signals and their relationship to the hydraulic fracture*

**SHAWN MAXWELL, PAIGE MAMER, HODA RASHEDI,
AND JOHNNY WENTZEL**

MUG COMMITTEE CO-CHAIRS

Lunchbox Geophysics

Lunchbox Geophysics is an informal, free-of-charge technical lecture series that brings a variety of topical geophysical presentations to CSEG members.

www.cseg.ca/technical/category/lunchbox

The Lunchbox Geophysics committee welcomes all interested parties to submit their ideas for future talks. Our contact information can be found on the web page: www.cseg.ca/events/lunchbox.cfm.

For the 2017 season, five talks were given:

JANUARY

Drones: Safety & Regulations
David Willett

FEBRUARY

6D interpolation and its efficacy to preserve structure in challenging scenarios
Mark Ng* and Dan Negut

APRIL

Infusing rock physics into seismic inversion
Dr. Michel Kemper

Pre-stack gathers conditioning for AVO and elastic inversion
Todor Todorov

OCTOBER

Geophysics Giving Hydrogeologists What They Want: Hydraulic Conductivity, Fracture Characterization, Seepage Zones, And Flow
Paul Bauman

In addition to the speakers we would like to thank Lynn Engel who has been instrumental in finding speakers willing to share their work.

We would also like to thank Chevron for donating an auditorium for the talks.

JASON MCCRANK AND RICHARD GRAY
COMMITTEE CO-CHAIRS

Value of Integrated Geophysics (VIG)

The VIG Committee was created in 2013 with the mission of developing strong connections among geophysicists, geologists, engineers, managers, and the finance community, in order to increase success in the oil industry.

As one of our main efforts in 2017, VIG was asked to coordinate a VIG themed focus for the RECORDER (September 2017). Jessica Galbraith, Paul Hausmanis, Louis Chabot, Craig Christensen, David Gray, Elwyn Galloway, Ruth Peach and others contacted several authors and reviewed abstracts before selecting the following four articles for publication:

- ▶ **Fernando Alvarado Blohm** – *“Geoscientific Data Adds Value in Unconventional Reservoirs: Statistically Quantified”*
- ▶ **Kathleen Dorey** – *“Creating Economic Independence in Southeast Asia”*
- ▶ **Jean Legault et al.** – *“Assessing Risk to the Ermelo Ring Road from Historical Coal Undermining Using Helicopter TDEM and Ground Geophysics”*
- ▶ **Jennifer Miskimins** – *“Hydraulic Fracturing Data Integration – What Should I Be Asking My Engineer and What Are They Trying to Tell Me?”*

VIG organized fewer presentations and courses than in 2016, due to the demands of coordinating the RECORDER issue. Mike Hall helped organize Vince Rodych’s CSEG Lunchbox Geophysics talk, *“Formulating a Seismic Value Proposition for Oil Sands SAGD: A review of the continually evolving understanding and acceptance of the return on investment of seismic information”*. John Duhault gave a one-day VIG Doodletrain course, *“Maximizing Success Through Integrated Geophysical Applications”*. David Gray and his colleague, Dragana Todorovic, prepared a talk in 2017 for the January 2018 CSEG Luncheon, *“Forecasting Bitumen State and Production from 3C-4D*

Seismic”. David Gray was invited to participate in *“The Modern Geoscientist”* panel at GeoConvention.

Some of us attended the March 2017 Chief Geophysicists’ Forum. Ruth Peach provided them with a summary of VIG’s activities, and noted from the meeting some of the challenges facing oil and gas producers.

We started building the “VIG Library”, a short list of carefully selected papers (links to publications) to assist geophysicists and demonstrate how geoscience can lower costs, lower risks, and increase profits.

Craig Christensen interviewed geophysicists working at companies outside of the oil industry (environmental, hydrogeology, mining) who gave him several examples of the value of integrated geophysics.

Paul Hausmanis stepped down as Chair of the VIG Committee and Ruth Peach accepted the Chair position for 2018.

Ideas and Plans for 2018:

- ▶ Finish the VIG Library and put it on the CSEG website
- ▶ Present talks to SPE
- ▶ Publish article in SPE magazine
- ▶ Investigate using the DOB and BOE to increase awareness
- ▶ Recruit more volunteers to VIG

Members as of March 1, 2018: Louis Chabot, David Gray, Ken Gray, Paul Hausmanis (Past Chair), Mike Hall, Darren Kondrat, Ruth Peach (Chair).

RUTH PEACH
VIG CHAIR 2017

RECORDER 2017

The RECORDER continues to be the flagship magazine of the CSEG, publishing technical articles, current or human-interest articles, society news, and advertisements from our industry online except for one edition in April. The RECORDER publishes 7 editions per year which is on average every six weeks. The RECORDER is also the primary record of the activities and accomplishments of CSEG members, committees, and volunteers.

The RECORDER Committee provided the final printed version of the RECORDER for January 2017 edition, which was the last official printed version of the RECORDER. It has been decided that the Geoconvention edition of the RECORDER in April will have a printed as well as electronic edition.

The March 2017 edition of the RECORDER was the first edition to be fully electronic.

October 2017, was the first time it was announced on the CSEG LinkedIn page that the RECORDER was available to the CSEG members and at the November Technical Lunch a presentation was given describing what was upcoming in the RECORDER. These steps were taken because it was noticed most members may not be getting communication about the RECORDER and when it is available online.

These changes, and all RECORDER editions, were only possible with the help of the Recorder Committee members, our contributors, authors, Bonnie and Lawrence Luft (The Printman), the Digital Media Committee, Jim Racette, and Alyssa Middleton. You have our sincerest thanks!

RECORDER COMMITTEE MEMBERS 2017

Past and current Chief Editors: Penny Colton, Rob Holt, Nicole Willson and Brian Schulte.

Associate Editor: Nicole Willson

Past and current Technical Editors: Neda Boroumand, Steve Jensen, Elias Carciente, Elwyn Galloway, Ruth Peach, Fereidoon Vasheghani, Omid Aghaei, Mostafa Naghizadeh, Matteo Niccoli, Mark Dahl and Satinder Chopra (as advisor).

REGULAR COLUMNISTS

CAGC Column: Mike Doyle

Grapevine (which ended in March 2017): Kristy Manchul

Science Break: Oliver Kuhn

Tracing the Industry: Carmen Swalwell (January), Kristy Manchul, who began the column in April

Letters to the Editor: from various members

SPECIAL COLUMN CONTRIBUTORS

Volunteer Spotlight: Past President Rachel Newrick

Committee Highlight: Stephen Kotkas and Kevin Bianchini

TECHNICAL ARTICLES

The 2017 RECORDER published twenty-four articles in Focus themes and twelve general articles.

Focus themes and Coordinators / Technical Editors:

Mid-January: Geostatistics – Big Data – Analytics

Neda Boroumand* / Hoda Rashedi

March: Back to Basics

Nicole Willson* / Steve Jensen

Mid-April: Greenhouse Gas/Environmental Geoscience (GeoConvention)

Omid Aghaei/Ruth Peach* / Omid Aghaei/Ruth Peach

June: Western Canada Mining Geoscience

Oliver Kuhn/Jean Legault* / Elias Carciente

September: Value of Integrated Geophysics (VIG)

Louis Chabot/Paul Hausmanis* / Elwyn Galloway

Mid-October: Processing

Rob Holt* / Fereidoon Vasheghani

December: Water Exploration

Dr. Mel Best* / Steve Jensen

INTERVIEWS

The Interviews are popular with the CSEG readership and provide ready access to an invited selection of geophysicists who share insights on their knowledge and experience base with the rest of the geoscience community. The interviews are coordinated by Satinder Chopra in one of two formats. The short-format interviews and the traditional long-format interviews are with selected members of the CSEG.

The following individuals were interviewed during 2017:

January – Amy Fox

March – Eric von Lunen

April – Jonathan Matthews

September – Paul Hatchell

SCIENCE BREAK

Another popular column in the RECORDER is Oliver Kuhn's Science Break. This year Oliver wrote on the following subjects:

January – Animal Defense Systems

March – Metal Leaching

September – Automatic Transmissions

December – Fireworks

TRACING THE INDUSTRY

Carmen Swalwell began writing this column in January but then left the RECORDER Committee and Kristy Manchul took over the column in May 2017.

GRAPEVINE

Kristy Manchul began writing this column in January 2017 but because she took over the "Tracing the Industry" from Carmen this column has been somewhat merged into the "Tracing the Industry".

IN MEMORIAM

One remembering-type tribute was published in 2017, in December for BARRY KORCHINSKI.

CSEG AWARDS: BEST RECORDER PAPER

The 2016 CSEG Awards for 'Best Technical Luncheon Presentation' and 'Best Recorder Paper' were presented by Graziella Kirtland Grech, Director Educational Services, at the Doodletrain Technical Luncheon which was held in Calgary on November 6, 2017.

2016 CSEG BEST TECHNICAL LUNCHEON PRESENTATION

Ann O'Bryne (Cenovus Energy)
"Improving Seismic Data While Decreasing Costs"
September 19th, 2016

2016 CSEG BEST RECORDER PAPER

Dr. Ted Urbancic, and Dr. Adam Baig (ESG), and Jason Hendrick, and Eric von Lunen (Nexen)
"Beyond the Microseismic Clouds: A Comprehensive Approach to Unconventional Gas Development"
Published in the December 2016 edition of the CSEG RECORDER

BRIAN WM. SCHULTE, CHIEF EDITOR

DoodleTrain 2017

Both the number of courses run and the number of registrants were up from 2016. A total of 14 courses were run with 4 brand new courses, 2 returning after short breaks and 8 returning from 2016. Enrollment was up from 181 registrants in 2016 to 201 in 2017, quite a remarkable achievement given the continued downturn in the state of the industry. The initiatives introduced in 2016 for companies to obtain concessions when booking multiple registrants were continued for 2017 and certainly helped to contribute to the excellent total number of registrants. The CSEG Foundation again came forward with support for the underemployed and unemployed with reduced cost registration, including a ticket to the Keynote Speaker Luncheon for those who registered before the final deadline. This is of great service to those CSEG members who find themselves in these unfortunate situations and we are very grateful for their help.

For a change, the 2017 Keynote speaker was not from our industry but from the investment community, albeit specializing in oil and gas. Josef Schachter, CFA, of Schachter Energy Report and a frequent guest on BNN's Market Call gave a very interesting talk entitled "The final shakeout phase of the 2014 energy bear market is now underway – what happens from there?". It was enlightening to hear from someone on the outside looking in as to what the future may hold for us; indeed the bears do seem to be in retreat at the time of writing this article, but this author will not make any attempts at prediction.

The Bill Nickerson Education Award continued for 2017 with five exceptional candidates from across Canada. The worthy winner was Benjamin Consolvo from the University of Western Ontario. We wish Ben all the best in his geophysical career and encourage the other

excellent applicants to keep up their good work and efforts and also wish them success in their careers.

This year was the first time that course notes were provided in digital rather than printed form. This is a substantial cost savings to the society and will continue, likely with some refinements to the process, in future DoodleTrain weeks. It also brings DoodleTrain into line with other training events in this digital age.

The DoodleTrain would not be possible without the efforts of several groups of people and companies. Many volunteers gave generously of their time and efforts, either running sub-committees or overall participation. In no particular order, these were Patricia Gavotti (who left for work in Kingston, Ontario), Jounada Oueity, Juan Joffre, Dunia Blanco, John Fernando, Hugh Geiger, Akshay Gulati, David Emery, Ryan Cox, Hilary Meakin, Davood Noroozi (before taking up a position in Iran) and, latterly, Ethan Burke. As always, Jim Racette and Alyssa Middleton of the CSEG office provided tremendous support in organizing many of the details to smooth the running of the event.

DoodleTrain is always very grateful to the financial and venue sponsors who are shown below.

In summary, DoodleTrain 2017 can be considered a success. It was also overall positive in its financial success as well as in realizing its main mission of bringing world class, current and relevant training to the CSEG membership at an affordable cost without the need to travel.

MIKE HALL
DOODLETRAIN CHAIR, 2017

2017 DoodleTrain Financial Sponsors



2017 Venue Sponsors



GeoConvention 2017

GeoConvention 2017 was held May 15-17, 2017 at the Telus Convention Centre in Calgary. The focus of the convention was described as:

“In the rapidly changing landscape of the oil and gas industry, both regionally and globally, it is more crucial than ever to share ideas about technical innovations and business strategies to help shape our future. GeoConvention 2017 was a learning, networking and promoting experience for geoscientists and executives from E&P companies, service companies, the academia and governmental agencies.”

Thanks to the CSEG, CSPG, CWLS and our generous sponsors, every year the GeoConvention provides an opportunity for several thousand delegates and exhibitors to benefit from and give back to the community, through technical sessions, special events and the exhibition floor. Going beyond the traditional technical sessions, GeoConvention 2017 will take a holistic approach with a large spectrum of topics including financial market and long term strategy, infrastructures, regulations, safety and environmental protection, among others.

In a complex and uncertain global environment, we aim at promoting collaborative approaches and multidisciplinary integration to help optimize the efficient and responsible development of oil and gas resources. Join us at the GeoConvention and contribute to make it an important milestone in this endeavor!

GeoConvention 2017 had a successful rebound year that exceeded budgeted profit expectations for the program. Through the support of our sponsors and exhibitors, and the participation of our delegates, GeoConvention returned profits of \$113,064 to the CSEG. The main objectives of GeoConvention 2017 were to continue managing our cost structure while diversifying the program to being in a wider audience of students and oil and gas professionals.

VOLUNTEERS

As in past years, volunteers were critical to a successful convention and Table 1 lists the convention committee chairs. Additionally, some 110 volunteers, both students and industry professionals, helped make the convention a success.

Committee	Name
General Co-Chair	Nanna Eliuk
General Co-Chair	Tristan Euzen
General Co-Chair	Gary Bugden
Technical Co-Chair	Brianna Saxton
Technical Co-Chair	Adam Fraser
Technical Co-Chair	Jason Hendrick
Exhibit Chair	Nash Hayward
Volunteer Chair	Mandy Thompson
Sponsorship Chair	Bryn Davies
Finance Chair	Spryng Kubicek
Mobile App Chair	Kyle Powers
Social Media Chair	Chris Harrison
Special Events	Callum Buchan

Judging Chair	Lynn Engel
Poster Chair	Amy Switzer
Alumni/Students	Jason Moore
Alumni/Students	Brendon Lybbert

Table 1. GeoConvention 2017 committee listing.

TECHNICAL

GeoConvention 2017 was our largest technical program ever, hosting a total of 223 talks across 58 sessions over the three days with including 4 panel discussions and another 84 total posters. This was well above the 2016 numbers by 100 talks and 6 posters.

Under the guidance of the GeoConvention Board, the technical committee sought to diversify the 2017 content by sourcing the following groups to participate in the technical program: Society of Petroleum Engineers, Canadian Society for Gas Migration, Higher Landing, Enform, and Canadian Society for Unconventional Resources in addition to content from the University of Calgary Schulich Career Center and a session on pipelines and transportation from Tenaris.

SPONSORSHIP

Sponsorship continued to be significantly impacted by the downturn and we are very thankful to those sponsors who contributed to our success. The sponsors and their support levels are shown in Figure 1. Sponsorship allows us to offer a diverse technical



Figure 1. GeoConvention 2017 sponsors

GeoConvention 2017 Continued from Page 29

program while also supporting our luncheons and networking opportunities. The ongoing support of these sponsors is certainly appreciated and critical to the ongoing success of GeoConvention.

EXHIBITS

2017 saw an increase in exhibit revenue from 2016 numbers with 86 total exhibitors compared with 58 in 2016. The pricing was held flat to 2016 levels to begin the process of driving exhibitors back to the GeoConvention floor. In the end, The Exhibit Hall C and D in addition to the exhibit hall pre-function area was utilized to showcase the 86 exhibitors. The Exhibit Hall X was used for the poster presentations, a feature many exhibitors commented as being a strong positive addition.

New for 2017, food concessions were hosted on the exhibit floor to try and attract people to the floor during the lunch hour as opposed to leaving the venue site.

A showcase stage was also added to the exhibit floor where participants (exhibitors/sponsors) were able to book time in 30-minute intervals to promote their company and associated technologies. Seating was arranged for 30 people in the space that also included a screen, podium and sound system. In its first year, the showcase stage was a success in allowing a forum for companies to speak.

ATTENDANCE

2017 saw a bit of a rebound from 2016 in the oil and gas sector that saw oil prices plunge climb about 20% in the period leading up to the convention. Overall, GeoConvention saw 3007 unique registration entries, up from 2402 registrants in 2016.

NETWORKING

The networking nights again proved to be the single-biggest draw to the exhibition floor. The Monday attracted an estimated 850 visitors and the Tuesday another 700 at these very popular industry events.

In place of the Alumni Event which did not have much interest in 2017 as applications were being sought, GeoConvention 2017 hosted an inter-society mixer in the pre-function area where the society booths were located just before the Challenge Bowl. The society representatives were asked to remain at their booths, allowing for additional traffic and opportunity to gain exposure. This event ran from 4:15 – 5pm and attracted an estimated 120 participants, most of whom funneled into the Challenge Bowl.

The final event associated with GeoConvention 2017 was the “Best of 2017 Networking Night” held at the Nexen Theater on October 19, 2017. This was the third annual “Best of” event where we had the opportunity to thank our 2017 sponsors and recognize the winners of awards for the best posters and oral presentations. Five of our award winners presented their work in a fast-paced 6 minute, 40 second PechaKucha format. A complete list of award winners can be found in the September 2017 edition of The Recorder

For 2018, GeoConvention will be hosted at the Calgary Telus Convention Centre May, May 7th – 9th with a targeted focus on topical technical content. To keep up to date on GeoConvention visit www.geoconvention.com and follow @geoconvention on Twitter, geoconvention on LinkedIn and Instagram and GeoConvention-Canada on Facebook.

NANNA ELIUK, GEOCONVENTION CO-CHAIR

DUSTIN MENGER, GEOCONVENTION MANAGER

2017 CSEG Symposium

The sixth annual CSEG Symposium was held at the Calgary Petroleum Club on April 6th 2017 to a sold out crowd of 170 attendees. Each year the Symposium celebrates an exemplary individual who has distinguished themselves for their contribution to geophysics, the industry, and to the society. In 2017, the Symposium committee honoured Satinder Chopra, a man who needs little introduction as he has impacted so many in the geophysical community. His plethora of articles, papers, and books on a wide range of topics, from seismic attributes, like curvature, to other reservoir characterization methods has made him a recognizable name on the geophysical landscape. He remains an active member of the CSEG, most remarkably known for his 11 years of service as Chief Editor of the CSEG RECORDER, and he continues to be an influential educator, giving presentations and teaching courses to a wide audience. With all these accomplishments, Satinder continuously strives to deliver value back to the industry, which has been the central focus of the Symposium event.



This day of education emphasizes the presentation of case studies based on value added results that geophysics makes to our industry. This year's theme of "Creative Measures" highlights the idea that, as we adapt to a new normal environment, it will be creative measures that add value to the integration of geophysics, geology, and engineering. This theme also embodies Satinder's curiosity and tenacity in his endless search for value-driven answers in the seismic realm.

The Symposium Committee in 2017 was comprised of a very dedicated group of individuals consisting of: Mark Jeronic (Chair), Laurie Ross (Past-Chair), Amanda Hall (Speakers), Doug Clark (Speakers), Caitlin Dobbie (Sponsorship), Marc Boulet (Advertising), and Mike Perez (Member at Large). The time and effort it takes to plan an event is not easy and it was their commitment that resulted in a successful, sold out event.

The 2017 CSEG Symposium featured a variety of invited speakers who were chosen from a collection of abstract proposals. This was a feature year, bringing 4 out-of-town speakers alongside 4 very well-known local speakers, making it a very dynamic crew. The speakers and their talk titles included:

'BroadBand onshore: a case-history'
David Monk, Apache Corporation

'Using buried receivers for multicomponent, time-lapse heavy oil imaging'
Peter Vermeulen*, Guoping Li, Brion Energy; Hugo Alvarez, Peter Cary, Arcis Seismic Solutions/TGS, Gary James, LXL Consulting Ltd.

'Fault Detection Using Principal Component Analysis of Seismic Attributes in the Bakken Formation, Williston Basin, North Dakota, USA'
Dr. John P. Castagna, University of Houston

'Extended poroelastic impedance with applications to an Alberta gas sand'
Brian H. Russell, CGG GeoSoftware

Luncheon Speaker – 'Embracing Change – A New Normal is Coming'
Suzanne West, President and CEO of Imaginea Energy

'Understanding stratigraphic filtering effects on interpretation'
Fred Hilterman*, Geokinetic Inc.
Leila Douaouda Naili, Sonatrach

'Correlating rate of penetration and bit trips to 3D surface seismic data in the Mississippi Lime Play'
Kurt J. Marfurt*, Joseph Snyder, and Xuan Qi, University of Oklahoma

'Microseismic interpretation of hydraulic fractures through numerical modeling and data integration: strain residual analysis'
Neda Boroumand, PhD* and David W. Eaton, PhD,
University of Calgary

'Understanding qualitative and quantitative interpretation and the space in between'
Marco Perez, Velvet Energy

At the end of each talk session the floor was open for planned discussion periods; attendees engaged in discussions pertaining to talks and/or topics even from out of left field. With such a well versed group of experts the discussion periods were very lively! These discussions undoubtedly add value to the Symposium event overall, as it stimulates new ideas and thoughts that can be carried over to coffee breaks and the end of day mixer, after the Symposium.

The committee would especially like to thank all of our 2017 sponsors which include: Jupiter Resources, Arcis, Geo-X, Geomodelling, Divestco, Apache, CSEG Foundation, Repsol, and Western Geco. In these economic times, sponsorship can be limited so we appreciate the assistance in being able to offer this educational day at a very reasonable cost.

We would also like to thank the attendees themselves because without their participation there wouldn't be a Symposium at all. We recognize that professional development funds are limited and we thank the companies of our attendees for letting them spend their work hours attending the Symposium.

Moving to the future, Doug Clark has accepted the chair position for the 2018 CSEG Symposium and planning has been on its way for a few months. In the spirit of adapting, Symposium is making exciting changes and moving venues this year to Hudson on Stephen Ave. We look forward to another great educational event at this location and we hope to see you there.

Thank you again for all of the support.

MARK JERONIC, 2017 CSEG SYMPOSIUM CHAIR

50th Annual Family Ski Spree

The 50th Annual CSEG Family Ski Spree was held from February 10 – 12, 2017 at the beautiful Fairmont Hot Springs Resort in Fairmont, B.C. Sixty-seven CSEG members brought their families to B.C. for this weekend that saw a total of 264 participants – almost the same numbers as 2016 – which we consider to be a huge success. This year, we tried to do few special things to celebrate the 50th. Eagle Canada stepped up and provided champagne for a toast. Adults received beautiful engraved wine glasses and kids got custom-made toques. It was a weekend of fun for everyone of all ages and skiing skill levels. You definitely didn't need to ski in order to participate. The format for the weekend is a long-standing tradition that focuses on all the children while still keeping the adults entertained.

Friday evening began with the family registration and then the games began. The Toddler Room, ages 0-4, was filled with safe and age-appropriate toys. The SISMA Drilling Mini Mixer, ages 5-11, was where all the action was. There were multiple crafts for everyone, some needing adult supervision and some not. Pizza, snacks and drinks were readily available throughout the evening. Everyone then helps in the massive clean-up as we set up for a Night at the Movies. Everyone knows how hard it is to keep the teenagers occupied, but the volunteers in the Teen Room, ages 12-18, seemed to have the formula for success. The night was centered around a difficult scavenger hunt that scattered the teens to all corners of the hotel to learn about the history of the Columbia Valley. Other competitions centered on fitness, gaming and mental agility. Again, tons of pizza, snacks and drinks for all. And lots not forget about the adults. The Absolute Imaging Mogul Mixer was a chance to meet up with old friends and make new ones as the adults gathered for an Italian buffet. This was followed by the Divestco Ski Spree Grande Prix, racing Hot Wheels cars on a 10m track. Entertainment for the adults then continued upstairs in the Bear's Paw as Integrity Industries provided a DJ for the evening. Saturday was focused on the Fairmont Hot Springs Resort Ski Area, about a 5-minute drive from the hotel. For the younger generation, the LXL Consulting Ltd. Snow Snake Hunt and the Earth Signal Processing Ltd. Obstacle Race occupied the beginner hill. Children of all abilities navigated

the minimal difficulty obstacle course and searched for snakes in the snow to receive small prizes. For everyone else, they were encouraged to participate in the Seitel Canada Ltd. Snowboard Races and/or the Katalyst Data Management Downhill Races. Kids raced side-by-side against their parents, siblings or friends. The race commentary done by Peter provided great entertainment to everyone as it could be heard all over the Main Hill. Lunch was provided courtesy of the Ski Spree Sponsors. Arcis Seismic Solutions ran the Cocoa on the Mountain at the top of the ski lift and returning this year was the Alltrek Drilling Snowbank Taffy tent on the Lodge patio. There was just enough time after all the events on the hill for the vast majority of the participants to take a quick dip in the giant hot tub before heading for dinner. Saturday dinner saw all the families seated together as the Ski Spree Committee recognized the Sponsors for the weekend and handed out all the awards from the day, and there were a lot of awards and participation medals.. A charity raffle is held each year and this year the proceeds in the amount of \$1915 went to 'Missing Children Society of Canada'. On top of this, this year we auctioned 2 plane tickets to go wherever WestJet flies, which brought just over \$5,000 to the charity as well! Mr. & Mrs. Ski Spree is an award that recognizes years of participation and a visible positive attitude towards this event and it was given this year to Eileen and Robert Wood. For the adults, the night did not end after dinner. Synterra Technologies Ltd. Late Night occurred in the Bear's Paw. In another difficult year for the industry, the 2017 CSEG Family Ski Spree was extremely grateful for all the sponsors that donated what they could for this fantastic event. All it takes is to have seen all the kids' faces, either in the Crafts Room on Friday night or coming off the hill on Saturday to know that it was worth it. On behalf of the organizing committee we hope that everyone had a wonderful and fun-filled weekend and we look forward to seeing everyone again in 2018 at our 51th Celebration.

ALEX GAUTHIER

CSEG FAMILY SKI SPREE CHAIRMAN 2017

2017 CSEG Doodlebug

September 8-10th, 2017 – Banff Springs Golf Course

The 65th Doodlebug was hosted “Back in Banff” for the first time since 2000. The tournament started off in a high-energy mode as past friends reconnected for the Icebreaker cocktail reception on Friday night at the Moose Hotel Lobby Bar.

The Guest tournament led the way on Saturday morning with a 15 hole round on a combination of the Stanley Thompson and Tunnel Courses at the Banff Springs. Saturday Match play resulted in some competitive yet fun rounds for the Doodlebug flight participants.

A tasty banquet buffet meal was served in the Canoe room at the Moose Hotel on Saturday night, followed by dancing and late night socializing in the Chairman’s Suite.

Sunday offered clear skies for the Ceramic challengers and Chuckwagon participants, while the Guests had a memorable hike from the Upper Hot Springs to the top of the Sulphur Mountain Gondola for a gourmet-and well deserved lunch! This year we had 80 golfers and 48 guests, with more golfers than the Oilman’s!!

The winners of their flights and ceramic trophies were:

- ▶ Flight #1 Kevin McNee (78) – Mr. Doodlebug
- ▶ Flight #2 Carl Provencher (89) - Supervisor
- ▶ Flight #3 Alex Daum (89) – Party Chief
- ▶ Flight #4 Dave Wardlaw (89) – Interpreter
- ▶ Flight #5 Rob Curts (93) – Processor
- ▶ Flight #6 Terry Jackson (89) – Shothole Inspector
- ▶ Flight #7 David Grindell (95) – Surveyor
- ▶ Flight #8 Scott Totten (100) – Permit Men
- ▶ Flight #9 Mark Watson (99) – Bird Dog
- ▶ Flight #10 Alex Gauthier (100) – Landmen
- ▶ Chuckwagon Winners (183 points): Jason Nycz, Gail Morris, Mike Dahl, Jody Castle

If you were on the Committee or shot 89 you had a great chance at winning!

The Chairman’s Charity this year was the CSEG Foundation. The CSEG Foundation is the registered charitable arm of the Canadian Society of Exploration Geophysicists. The mission is to encourage and support scientific, educational and charitable activities that benefit geophysicists through the solicitation of contributions aimed at promoting the development of geophysical knowledge, education and public awareness. A charity donation of \$4395.00 was

generated by contribution and participation in the long drive and closest to the pin competitions. Tim Harris won the closest to the pin and Darren Tallas the long drive. We had no winners of the Volvo for the hole in one prize at the Cauldron par 3.

The Tom Podivinsky Memorial Award was presented to Glenn Larson for all his commitment, enthusiasm and passion towards the Doodlebug. Thank You Glenn.

The 2017 Doodlebug committee also extends a very special thank you to all our generous sponsors in the geophysical industry. The continued support of these sponsors has allowed the Doodlebug to be one of the premier social events on the CSEG Calendar.

Next year Alex Gauthier will be taking over as the 66th Doodlebug Chairman, stay tuned for more updates on the Doodlebug website as to the details for the event. Photos from this year are also available to download on the website. Best regards and wishes for a busy seismic winter!

DOODLEBUG COMMITTEE 2017

- Dave Wardlaw – Chair
- Alex Gauthier – Vice Chair
- Brian McCue – Past Chair
- Kim Nevada – Secretary/Treasurer
- Pascal St. Onge, Terry Jackson – Sponsorship
- Glenn Larson, Greg Staples – Housing/Registration
- Geoff Castle, Rob Willson – Entertainment
- Rob Curts – Printing/Website
- Ed Slobodian, Darren Tallas – Golf
- Rachel Binnion, Patti Wardlaw, Joanne Larson – Guest Events

DAVE WARDLAW

2017 CSEG DOODLEBUG CHAIRMAN

Diamond Sponsors 		
Chairman Sponsors 	Platinum Sponsors 	Gold Sponsors 
		Silver Sponsors 

9th Annual CSEG T-Wave Golf Tournament

The 8th Annual CSEG T-Wave Golf Tournament took place on June 26th, 2017 at Valley Ridge Golf Club. After a couple of tough years in the industry, the T-Wave funds were down to \$1,900 leading into the 2017 event. Fortunately in 2017 we had good support from Sponsors and ran the event efficiently, so we are now back up to the \$5,000 mark going forward for 2018.

A gigantic 'Thank You' to our Sponsors who helped make this event successful in 2017!

A heartfelt thank you goes out to the great committee members who made this tournament such a success. The T-Wave wouldn't exist without the dedication of its volunteer committee members!

Sponsorship – Sandy Lucas, Wade Whitlow, Brian Ingenthron

Prizes – Andrew Nicol, Ed Slobodian

Finance – Flo Reynolds

Registration – Jocelyn Frankow

Communication and Signage – Patty Evans

Chair – Rob Curts

Thank you all so much for supporting this fun local event. Our sponsors and participants are simply the best!

ROB CURTS

CHAIR, CSEG T-WAVE TOURNEY

Ace Sponsors






Eagle Sponsors





Mark Lukwinski
(Remax)



Birdie Sponsors





















19th Hole Sponsors























2017 Doodlespiel

The 45th annual 2017 Doodlespiel has now come and gone and this year we had 60 teams with over 300 participants. The town of Banff, the Banff Curling Club, and the Best of Banff company once again created an amazing venue for the Doodlespiel that was enjoyed by all.

The **A event** final had the Brack rink against the Boeckx rink and it was an exciting back and forth game. In the end the Brack rink, consisting of Mike Langlois, Jim Brack, Dave Cryer, Bill Campbell, and Dale Johnson won the A event. Congratulations to the Doodlespiel Champions!

Other event winners include:

B Event = Ken Lengyel, Joe Pilienci, Glen Stewart, and Steve Widden

C Event = Bob Bleaney, Bill Bradley, Tooney Fink, and Ken Hedlin

D Event = Grant Saskiw, Lori Barth, Kristy Manchul, and Mike Hartley

Holeplug #1 = Bill Greenan, Dustin Borostik, Todd O'Brien, and Todd Keedwell

Holeplug #2 = Victor Irwin, Andreas Georgousis, Mark Weatherbee, John Duhault, and Terry MacDonald

Team Spirit best costume awards go to:

1st Place = Teenage Mutant Ninja Turtles – Team Jeronic

This year we held a charity raffle once again, with all proceeds going to the CSEG Foundation "In the Rings" Scholarship Fund. With everyone's amazing generosity we raised over \$1800 from the raffle. A huge thank you to all those who participated and a thank you to all the sponsors that contributed raffle prizes. And once again, Larry Herd has generously matched all proceeds towards the fund, bringing us to a grand total of over \$3600! Thank you Larry!

DANIEL PEREZ

CHAIRMAN – 2017 DOODLESPIEL

Women in Seismic Golf Tournament (WiSe) 2017

The annual Women in Seismic golf tournament was held on Thursday, September 14th at Fox Hollow golf course. This year featured a fully sponsored, 9 hole tournament with 72 golfers (men and women) with a "Back to the 80s" theme.

Our tournament welcomes all members of the geophysical community (regardless of gender, service company, oil company, data technician or geophysicist... everyone is welcome to participate), and has a FUN first focus.

Sponsors are encouraged to interact with the golfers, and this year we had a Strong Arm competition (ring the bell), a name that 80s tune game, and longest/shortest drives. We hold an annual costume competition, with the prize being the Sean Callaghan Spirit Award, and this year's winners were the MacKenzie Family (think Bob and Doug and their 80-year-old parents). Our long-term charity partnership has been with the Cancer Foundation, and this year we raised over \$5000 for the Ovarian and Breast Cancer research.

KRISTY MANCHUL

2017 EVENT CHAIR

CANADIAN SOCIETY OF EXPLORATION GEOPHYSICISTS

Financial Statements

Year Ended December 31, 2017



INDEPENDENT AUDITOR'S REPORT

To the Members of Canadian Society of Exploration Geophysicists

I have audited the accompanying financial statements of Canadian Society of Exploration Geophysicists, which comprise the statement of financial position as at December 31, 2017 and the statements of revenues and expenditures and changes in net assets and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian accounting standards for not-for-profit organizations, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

My responsibility is to express an opinion on these financial statements based on my audit. I conducted my audit in accordance with Canadian generally accepted auditing standards. Those standards require that I comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my qualified audit opinion.

Basis for Qualified Opinion

In common with many charitable organizations, the Society derives revenue from member contributions and activities, the completeness of which is not susceptible of satisfactory audit verification. Accordingly, my verification of these revenues was limited to the amounts recorded in the records of the Society and I was not able to determine whether any adjustments might be necessary to contributions, excess of revenues over expenses, current assets and net assets.

Qualified Opinion

In my opinion, except for the effect of adjustments, if any, which I might have determined to be necessary had I been able to satisfy myself concerning the completeness of the contributions referred to in the preceding paragraph, the financial statements present fairly, in all material respects, the financial position of Canadian Society of Exploration Geophysicists as at December 31, 2017 and the results of its operations and its cash flows for the year then ended in accordance with Canadian accounting standards for not-for-profit organizations.

Calgary, Alberta
March 22, 2018

Murray Hunter
CHARTERED ACCOUNTANT

Tel: (403) 250-2777 Fax: (403) 250-2774
210, 2635 - 37th Avenue N.E., Calgary, Alberta T1Y 5Z6



CANADIAN SOCIETY OF EXPLORATION GEOPHYSICISTS
Statement of Financial Position
December 31, 2017

	2017	2016
ASSETS		
CURRENT		
Cash	\$ 159,362	\$ 170,100
Accounts receivable	13,087	22,599
Convention development fund	41,926	32,759
Goods and services tax recoverable	211	-
Prepaid expenses	9,967	7,472
	<u>224,553</u>	232,930
FURNITURE AND EQUIPMENT (Note 5)	7,849	10,614
RESTRICTED FUNDS	<u>1,071,632</u>	1,071,632
	<u>\$ 1,304,034</u>	<u>\$ 1,315,176</u>
LIABILITIES AND NET ASSETS		
CURRENT LIABILITIES		
Accounts payable and accrued expenses	\$ 25,213	\$ 21,411
Deferred income	26,324	38,206
	<u>51,537</u>	59,617
NET ASSETS		
Capital assets	7,849	10,614
General fund	173,016	173,313
Restricted funds	<u>1,071,632</u>	1,071,632
	<u>1,252,497</u>	1,255,559
	<u>\$ 1,304,034</u>	<u>\$ 1,315,176</u>

ON BEHALF OF THE BOARD

_____ Director

_____ Director

See notes to financial statements

2



CANADIAN SOCIETY OF EXPLORATION GEOPHYSICISTS
Statement of Revenues and Expenditures and Changes in Net Assets
Year Ended December 31, 2017

	2017	2016
REVENUES		
Geo convention	\$ 122,231	\$ -
Continuing education	29,501	21,657
Doodletrain	116,340	119,886
Interest and other	16,272	20,830
Luncheon fees	43,016	45,225
Memberships	94,614	84,793
Recorder	53,260	56,990
	<u>475,234</u>	<u>349,381</u>
EXPENDITURES		
Administration	246,606	270,592
Amortization	3,363	4,697
Recorder	61,660	130,874
Interest and bank charges	886	865
Continuing education	21,486	19,248
Doodletrain	82,253	102,060
Digital media	7,906	16,323
Member services	24,995	24,731
Luncheons	29,141	41,695
	<u>478,296</u>	<u>611,085</u>
DEFICIENCY OF REVENUES OVER EXPENDITURES BEFORE WRITE-DOWN OF CONVENTION DEVELOPMENT FUND	(3,062)	(261,704)
Write-down of convention development fund	-	(9,350)
NET DEFICIENCY OF REVENUES OVER EXPENDITURES	(3,062)	(271,054)
NET ASSETS - BEGINNING OF YEAR	<u>1,255,559</u>	<u>1,526,613</u>
NET ASSETS - END OF YEAR	\$ 1,252,497	\$ 1,255,559

See notes to financial statements

3

CANADIAN SOCIETY OF EXPLORATION GEOPHYSICISTS
Statement of Cash Flows
Year Ended December 31, 2017

	2017	2016
OPERATING ACTIVITIES		
Deficiency of revenues over expenditures	\$ (3,062)	\$ (271,054)
Items not affecting cash:		
Amortization of furniture and equipment	3,363	4,967
Write-down of convention development fund	-	9,350
	<u>301</u>	<u>(256,737)</u>
Changes in non-cash working capital	<u>(10,441)</u>	<u>379,622</u>
Cash flow from operating activities	<u>(10,140)</u>	<u>122,885</u>
INVESTING ACTIVITY		
Purchase of furniture and equipment	<u>(598)</u>	-
Cash flow from (used by) investing activity	<u>(598)</u>	-
FINANCING ACTIVITY		
Transfer of general funds to restricted funds	-	<u>(360,000)</u>
Cash flow from (used by) financing activity	<u>-</u>	<u>(360,000)</u>
DECREASE IN CASH FLOW	(10,738)	(237,115)
Cash - beginning of year	<u>1,241,732</u>	<u>1,478,847</u>
CASH - END OF YEAR	<u>1,230,994</u>	<u>1,241,732</u>
CASH CONSISTS OF:		
Cash	\$ 159,362	\$ 170,100
Restricted assets	<u>1,071,632</u>	<u>1,071,632</u>

See notes to financial statements

4

CANADIAN SOCIETY OF EXPLORATION GEOPHYSICISTS

Notes to Financial Statements

Year Ended December 31, 2017

1. BASIS OF PRESENTATION

The financial statements were prepared in accordance with Canadian accounting standards for not-for-profit organizations (GAAP).

2. NATURE AND OBJECT OF THE SOCIETY

The Canadian Society of Exploration Geophysicists (the Society) was established as a Society under the Societies Act of Alberta on December 20, 1949 as a not-for-profit organization.

The object of the Society is to promote the science of geophysics, especially as it applies to exploration, and to promote fellowship and cooperation among the persons interested in geophysical problems.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Revenue recognition

The Society follows the deferral method of accounting for contributions. Restricted contributions are recognized as revenue of the appropriate fund in the year in which the related expenses are incurred. Unrestricted contributions are recognized as revenue of the appropriate fund when received or receivable if the amount can be reasonably estimated and collection is reasonably assured.

Project revenues and expenses are recognized in the Project Fund during the period when the revenue is received and expenses are incurred.

Convention revenues and expenses are recognized in the Convention Fund during the period when the convention is held.

Capital assets

Capital assets are recorded in the Operating Fund at cost. Amortization is provided on straight-line basis over three to eight years, being the estimated useful life of the assets.

Leasehold improvements are amortized on a straight-line basis over the term of the lease, which is five years.

Contributed services

The operations of Society are dependant on the services of many volunteers. Although these volunteered services form an integral part of the ongoing operations, the value of contributed services has not been recognized in these financial statements.

(continues)

CANADIAN SOCIETY OF EXPLORATION GEOPHYSICISTS

Notes to Financial Statements

Year Ended December 31, 2017

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Social committees

Various social committees within the society have monies available to them in order to administer the specific activities for which the committees were established.

The financial activities of these committees have not been reported upon in these financial statements..

Income taxes

The Society is a not-for-profit organization and is exempt from income taxes pursuant to Section 149 of the Income Tax Act.

Measurement uncertainty

The preparation of financial statements in conformity with Canadian generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amount of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the period. Actual results could differ from these estimates.

4. INTERNALLY RESTRICTED FUND BALANCES AND INTERFUND TRANSFERS

The internally restricted funds have been allocated as follows:

	<u>2017</u>	<u>2016</u>
Operating fund - reserve	\$ 940,000	\$ 940,000
Convention fund	<u>131,632</u>	<u>131,632</u>
	<u>\$ 1,071,632</u>	<u>\$ 1,071,632</u>

The Society's Executive Committee has internally restricted funds amounting to \$ 1,071,632 (2015- \$ 1,071,632). These amounts are not available for other purposes without approval of the Executive Committee. The internally restricted fund provides for sustainable administration, recorder and membership costs.

5. FURNITURE AND EQUIPMENT

	Cost	Accumulated amortization	<u>2017 Net book value</u>	2016 Net book value
Furniture and fixtures	\$ 25,855	\$ 18,006	<u>\$ 7,849</u>	<u>\$ 10,614</u>

CANADIAN SOCIETY OF EXPLORATION GEOPHYSICISTS

Notes to Financial Statements

Year Ended December 31, 2016

6. FINANCIAL INSTRUMENTS

The Society's financial instruments that are included in the statement of financial position are comprised of cash, accounts receivable, accounts payable and deferred revenue, all of which approximate fair value due to the immediate or short term maturity of these instruments. In addition, included in restricted assets are \$ 800,600 of guaranteed investment certificates with maturities ranging from July 2017 to July 2020 bearing interest at rates between 1.2% to 2.1%. The Society has some exposure to changes in interest rates on these investments over this period. It is the opinion of management that the Society is not exposed to any material credit or liquidity risk on any of the other financial instruments.

7. COMMITMENTS

The Society is committed to a seven year lease commencing in 2011 that expires September 30, 2018. Annual base rental commitments are \$ 26,768. Current monthly payments are \$ 5,034.

Past Presidents

1950	John O. Galloway	1973	Wes N. Rabey	1996	Dan Hampson
1951	Charlie M. Moore, Jr.	1974	John H. Harding	1997	Robert R. Stewart
1952	L. I. Brockway / Norman J. Christie	1975	Jack R. Pullen	1998	Nancy Shaw
1953	Bill (W.R.) Ogilvie	1976	William D. Evans	1999	Doug Pruden
1954	R.J. Copeland	1977	R. J. McCaffrey	2000	Perry Kotkas
1955	R.D. Holland	1978	Earle F. Mahaffy	2001	Randy Pelletier
1956	R.B. Ross	1979	Lloyd R. Hatlelid	2002	Doug Uffen
1957	George J. Blundun	1980	P.D. (Denny) O'Brien	2003	W. (Bill) Goodway
1958	Francis A. Hale	1981	A. Easton Wren	2004	Peter Cary
1959	H.J. Kidder	1982	Duncan A. Carswell	2005	James Stenhouse
1960	Milton Dobrin	1983	Valerie A. A. Nielson	2006	Oliver Kuhn
1961	Peter I.(Ibrahim) Bediz	1984	Jim R. Hume	2007	Doug Bogstie
1962	Peter J. Savage	1985	Larry C. Fichtner	2008	Francois Aubin
1963	Robert Harold Carlyle	1986	John D. Boyd	2009	Jon Downton
1964	Carl J. Chapman	1987	Robert L. Comer	2010	John Townsley
1965	Robert A. Boulware	1988	Ralph M. Lundberg	2011	Larry Herd
1966	John Hodgkinson	1989	Allan J. Ferworn	2012	Rob Kendall
1967	Earl A. Fulmer	1990	Neil E. Rutherford	2013	Ron Larson
1968	George E. Longphee	1991	Brian H. Russell	2014	Robert Vestrum
1969	W. (Bill) Blair	1992	Robert James (Jim) Brown	2015	Rachel Newrick
1970	John L. R. Baxendale	1993	W. (Bill) E. Davit	2016	Marian Hanna
1971	Roy O. Lindseth	1994	Gary G. Tarylor		
1972	J. Ken Morrison	1995	Barry T. Korchinski		

CSEG Medal

The CSEG Medal was introduced in 1988 and is the highest award that the Society bestows. "The CSEG Medal is given in recognition of the contribution to Exploration Geophysics by a member of the profession in Canada. It can be gained through a long-standing significant contribution to the application, teaching or business development of Exploration Geophysics. It can also be gained through a single achievement in any of these areas, which has been recognized over a period of years as a significant development. The award will be made to a member of the geophysical profession who is recognized for his integrity as well as his accomplishments."

- ▶ Ted Rozsa
- ▶ Roy Lindseth
- ▶ Greg Davidson (1990)
- ▶ Dave Robson (1991)
- ▶ Robert R. Stewart (1992)
- ▶ Hugh Stanfield
- ▶ Donald Chamberlain
- ▶ John Boyd (1994)
- ▶ Garry Kelman
- ▶ Brian Russell (1999)
- ▶ Don Lawton (2000)
- ▶ Dan Hampson (2004)
- ▶ Bill Goodway (2007)
- ▶ George Betram (2008)
- ▶ Warner Loven (2009)
- ▶ Mauricio Sacchi (2012)
- ▶ Tad Ulrych (2013)
- ▶ Andreas Cordsen (2014)
- ▶ John Pierce (2015)
- ▶ Larry Lines (2016)

Honourary Membership Awards

Honourary Membership is normally given only to a few members who have gained recognition for distinguished contributions in the field of geophysics or in service to the CSEG, either nationally or internationally.

- ▶ George D. Garland
- ▶ J. Tuzo Wilson
- ▶ Norman Christie
- ▶ Milton B. Dobrin
- ▶ A.E. Pallister
- ▶ Roy O. Lindseth
- ▶ David W. Strangway
- ▶ Peter J. Savage
- ▶ R.H. Carylyle
- ▶ Ernest R. Kanasewich
- ▶ Robert Boulware
- ▶ A. Easton Wren (1987)
- ▶ Sudhir Jain
- ▶ Charlotte Keen
- ▶ Peter Gretener
- ▶ Gordon West
- ▶ Ron Clowes (1995)
- ▶ Douglas W. Oldenberg (1996)
- ▶ Roy Hyndman (1996)
- ▶ Larry Lines (1998)
- ▶ Zoltan Hajnal (1999)
- ▶ Brian Russell (2000)
- ▶ Robert Comer (2002)
- ▶ Robert Stewart (2003)
- ▶ John Boyd (2003)
- ▶ Davey Einarsson (2004)
- ▶ Mike Galbraith (2005)
- ▶ John Bancroft (2005)
- ▶ Perry Kotkas (2006)
- ▶ Peter Cary (2008)
- ▶ Peter Duncan (2009)
- ▶ Gary Margrave (2011)
- ▶ Don Lawton (2013)
- ▶ Don Gendzwill (2013)
- ▶ Satinder Chopra (2014)
- ▶ Penny Colton (2015)
- ▶ Dan Hampson (2015)
- ▶ Laurie Weston Bellman (2016)

Meritorious Service Awards

The Meritorious Service Award is given to members of the CSEG who have made a prominent and/or lengthy contribution to the Society and/or the industry as a whole. Current practice is to present a maximum of two of these awards each year.

- ▶ Harry McGrew
- ▶ Cecil A. Collins
- ▶ Milton B. Dobrin
- ▶ Alexander H. McKee
- ▶ Peter J. Savage
- ▶ Percy Smith
- ▶ Roy O. Lindseth
- ▶ John Hodgkinson
- ▶ Jack W. Bowden
- ▶ Hal W. Godwin
- ▶ J. Kenneth Morrison
- ▶ Westley N. Rabey
- ▶ Easton Wren (1977)
- ▶ Mary C. Colberg
- ▶ A. Vern Street
- ▶ Alan J. Ferworn
- ▶ Jack R. Pullen
- ▶ Sudhir Jain
- ▶ Bill Blair
- ▶ Harold Acheson
- ▶ Bud St. Clair
- ▶ William D. Evans
- ▶ Earle F. Mahaffy
- ▶ Jack E. Setters
- ▶ Peter Bediz (1983)
- ▶ William C. Stroup
- ▶ Ernie K. Shaw (1984)
- ▶ William Davitt (1984)
- ▶ Ray Prudholme
- ▶ George Blundun
- ▶ Valerie A.A. Neilson
- ▶ Duncan A. Carswell
- ▶ P. Dennis O'Brien
- ▶ Judi McDonald (1987)
- ▶ Dale Kary
- ▶ D.K. Bruce Fenwick
- ▶ Lloyd Hatlelid
- ▶ Larry Fichtner
- ▶ Don Simpson
- ▶ John Boyd (1988)
- ▶ Arthur Baptie
- ▶ Bob Comer
- ▶ Dan Hampson (1991)
- ▶ Nancy Shaw
- ▶ Ralph Lundberg (1992)
- ▶ Murray Olson
- ▶ George Kostashuk
- ▶ Robert Grigg
- ▶ Neil Rutherford
- ▶ Ken Duckworth (1994)
- ▶ Melvin E. Best (1995)
- ▶ Brian Russell (1995)
- ▶ Don C. Lawton (1996)
- ▶ James Brown (1997)
- ▶ John Pierce
- ▶ Gregg Milne
- ▶ Ernest Kanasewich
- ▶ Michael Enachescu (1998)
- ▶ Elaine Honsberger (1999)
- ▶ Dave Siegfried (1999)
- ▶ Doug Uffen (1999)
- ▶ Penny Colton (2000)
- ▶ Norm Cooper (2000)
- ▶ Barry Korchinski
- ▶ George Fairs (2001)
- ▶ Perry Kotkas (2002)
- ▶ Oliver Kuhn (2003)
- ▶ Satinder Chopra (2005)
- ▶ Bill Nickerson (2005)
- ▶ Helen Isaac (2007)
- ▶ Mauricio Sacchi (2007)
- ▶ Doug Schmitt (2008)
- ▶ Larry Mewhort (2008)
- ▶ Tooney Fink (2009)
- ▶ John Logel (2009)
- ▶ J.M. Annette Milbradt (2010)
- ▶ Laurie Ross (2010)
- ▶ Doug Bogstie (2011)
- ▶ Lee Hunt (2012)
- ▶ Mike Doyle (2013)
- ▶ Jocelyn Frankow (2014)
- ▶ Joanne Poloway (2014)
- ▶ Mo Al-Ibrahim (2015)
- ▶ Nana Eliuk (2015)
- ▶ Larry Herd (2015)
- ▶ Stephen Kotkas (2016)
- ▶ Trent Olsen (2016)
- ▶ Nicole Wilson (2017)
- ▶ Mike Hall (2017)

Technical Achievement

- ▶ Daniel Trad (2011)
- ▶ Shawn Maxwell (2013)
- ▶ Douglas Schmitt (2014)
- ▶ Richard Bale (2015)
- ▶ Stewart Trickett (2016)

Special Commendation

- ▶ Penny Colton (2010)
- ▶ Bill Goodway (2010)
- ▶ Larry Lines (2011)
- ▶ Tom Sneddon (2011)
- ▶ Rob McGrory (2012)
- ▶ Rick Green (2013)
- ▶ Paul MacKay (2014)
- ▶ Kurt Wikel (2015)
- ▶ Steve Lynch (2015)
- ▶ Sigma Exploration (2016)
- ▶ Matt Hall (2017)
- ▶ Evan Bianco (2017)

Symposium Honorees

- ▶ Brian Russell / Dan Hampson (2012)
- ▶ Bill Goodway (2013)
- ▶ John Boyd (2014)
- ▶ David Gray (2015)
- ▶ Bill Nickerson (2016)
- ▶ Satinder Chopra (2017)

2017 CORPORATE MEMBERS

