

# 2024 ANNUAL REPORT



SOCIETY OF EXPLORATION  
— GEOPHYSICISTS —

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## 2024 SEG EVENT AND MEMBERSHIP NUMBERS

**AT A GLANCE****WORKSHOPS AND MEETINGS**

Date	Event	Location	Registrations
7–9 Feb	NAPE	Houston, Texas	8000
12–14 Feb	International Petroleum Technology Conference (IPTC)	Dammam, Saudi Arabia	20,000
1–4 Mar	Offshore Technology Conference Asia (OTC)	Kuala Lumpur, Malaysia	21,000
11–13 Mar	Carbon Capture, Utilization, and Storage (CCUS)	Houston, Texas	1709
19–21 Mar	Role of Geosciences in Carbon Storage	Mumbai, India	150
27–29 Mar	SEG/SPE/SPWLA Workshop: From Measurements to Theory: Adventures in Rock Physics, Petrophysics, and Engineering — A Workshop Honoring the Contributions of Professor Carl H. Sondergeld	Norman, Oklahoma	85
9–10 Apr	8 <sup>th</sup> Virtual Student Conference Europe	Virtual	102
23–24 Apr	Borehole Geophysics: New Developments for Global Energy	Kuala Lumpur, Malaysia	50
23–25 Apr	Next Generation Land and Shallow Water Acquisition Workshop	Muscat, Oman	98
30 Apr–2 May	Summit on Geophysical Detection of Explosive Remnants of War: Solving Current Challenges of Unexploded Ordnance (UXO) and Demining	Virtual	157
6–9 May	Offshore Technology Conference (OTC)	Houston, Texas	60,000
19–22 May	GEM 2024 Shenzhen: International Workshop on Gravity, Electrical, and Magnetic Methods and Their Applications	Shenzhen, China	100+
21–23 May	Recent Advances in Geophysical Reservoir Characterization and Monitoring of CO <sub>2</sub> Sequestration in Carbonate Reservoirs	Abu Dhabi, UAE	98
22–23 May	Carbon Capture, Utilization, and Storage (CCUS) Brazil	Rio de Janeiro, Brazil	491
3–5 Jun	SEG 1 <sup>st</sup> Tarim Ultra-Deep Oil and Gas Exploration Technology Workshop	Korla, China	111
4–5 Jun	SPE/SEG Workshop: Injection Induced Seismicity	Fort Worth, Texas	114
17–19 Jun	Unconventional Resources Technology Conference (URTeC)	Houston, Texas	3259
24–27 Jun	Net-Zero Emissions Workshop	Virtual	126
2–4 Jul	Advanced Geophysical Solutions for Complex Geological Settings	Kuala Lumpur, Malaysia	120
14–19 Jul	Geophysical Research for Gigatonnes CO <sub>2</sub> Storage	Golden, Colorado	137
21–23 Jul	2024 SEG Workshop on Fiber Optics Sensing for Energy Applications	Xi'an, China	130
26–29 Aug	International Meeting for Applied Geoscience and Energy (IMAGE)	Houston, Texas	7823
6–8 Oct	SEG/SPWLA Symposium: Seismic Petrophysics	Al Khobar, Saudi Arabia	74
21–24 Oct	AAPG/EAGE/SEG: GEO 4.0 — Digitalization in Geosciences Symposium	Al Khobar, Saudi Arabia	316
22–24 Oct	Advances in Quantitative Interpretation	Kuala Lumpur, Malaysia	83
28–30 Oct	Challenges and Advances in Velocity Model Building	Muscat, Oman	76
28–31 Oct	Summit on Drone Geophysics	Virtual	127
4–6 Nov	4D Forum — Insight to Actions: Creating Value, Reducing Cycle Time, and Optimizing Production and Injection in a Digital World	Galveston, Texas	196

## WORKSHOPS AND MEETINGS (continued)

11–13 Nov	Advancing Carbon Capture, Utilization, and Storage (CCUS): East Asia Perspective	Qingdao, Shandong Province, China	124
18–20 Nov	International Geomechanics Conference (IGS)	Kuala Lumpur, Malaysia	274
19–21 Nov	Deep Reservoir Imaging and Characterization	Al Khobar, Saudi Arabia	63
3–4 Dec	4 <sup>th</sup> Joint SBGf/SEG Workshop on Machine Learning	Rio de Janeiro, Brazil	60
3–5 Dec	3 <sup>rd</sup> SEG/EAGE Workshop on Geophysical Aspects of Smart Cities	Seoul, South Korea	46
10–12 Dec	Addressing the Challenges in Processing Data for Land and Shallow Water in the Middle East	Abu Dhabi, UAE	95

## EDUCATION EVENTS

Continuing Education			
Date	Category	Instructor	Course
Jan	Private course	Ian Jones	An introduction to migration and velocity model building
Feb	Private course	Mark Willis	Distributed acoustic sensing
Nov	Private course	Bill Harbert	CCUS gas storage
9–12 Apr	Public/virtual	Donald Herron and Robert Wegner	Basic seismic interpretation
23–24 Apr	Public/virtual	Karen Christopherson	Magnetotellurics for natural resources: From acquisition through interpretation
7–8 May	Public/virtual	Koichi Hayashi	Passive surface wave methods using ambient noise: From 1D sounding to 3D high resolution
13–14 May	Public/virtual	Kevin Bohacs	Introduction to field safety leadership
28–29 May	Public/virtual	John Bancroft	A practical understanding of inversion for exploration geophysics
25 Aug	Public	Reinaldo Michelena	Construction of fractured reservoir models for flow simulation incorporating geology, geophysics, and geomechanics
25 Aug	Public	Mrinal Sen	SEG DISC: Physics and data driven seismic data analysis: A narrative of two approaches
25 Aug	Public	Diana Khandilyan and Mohammad Tavallali	Carbon capture and storage (CCS) for oil and gas professionals: Strategies for a sustainable future
26 Aug	Public	Gerard Schuster	Practical machine learning methods in the geosciences
4–8 Nov	Public/virtual	Malcolm Lansley	Basic geophysics, seismic fundamentals and 3D seismic exploration
2–5 Dec	Public/virtual	Serge Shapiro	Rock physics, geomechanics, and hazard of fluid-induced seismicity
9–12 Dec	Public/virtual	Michal Ruder	Gravity and magnetics for explorationists

## EDUCATION EVENTS (continued)

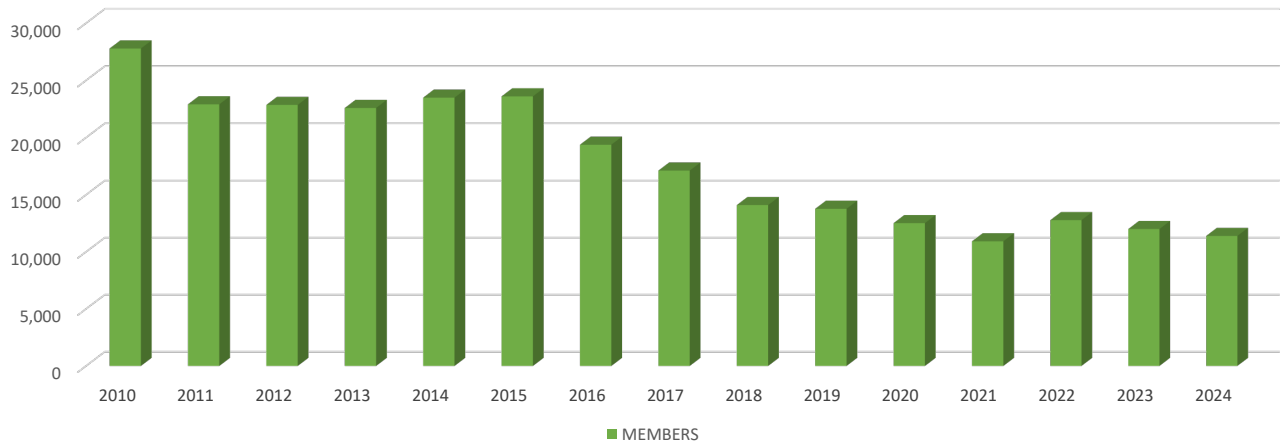
Distinguished and Honorary Lectures					
Date	Category	Lecturer	Topic	Registrations	Viewers
15 Jan	Middle East and Africa HL	Umair bin Waheed	Scientific machine learning in geophysical exploration and monitoring	528	153
21 Mar	Latin America HL	Eduardo Corti	Unconventional borehole seismic techniques	152	51
8 May	Pacific South HL	Tim Dean	Seismic acquisition and the energy transition	30 in attendance	
16 May	Latin America HL	Eduardo Corti	Unconventional borehole seismic techniques	289	107
21 May	Pacific South HL	Tim Dean	Seismic acquisition and the energy transition	125	29
23 May	DL	Christof Stork	How does the thin near surface of the earth produce up to 100 times more noise on land seismic data than on marine data?	328	173
25 Jun	DL	Christof Stork	How does the thin near surface of the earth produce up to 100 times more noise on land seismic data than on marine data?	207	59
28 Jun	Pacific South HL	Tim Dean	Seismic acquisition and the energy transition	145	64
25 Sep	Baker Hughes Global Sustainability	Ron Harris	Geological hazards risk assessment and reduction: A case study from South East Asia	80	36
25 Sep	Near Surface	Kamini Singha	Geophysics for discovering new horizons in critical zone science	282	118
4 Oct	SEG/AAPG DL	Ge Jin	Distributed fiber-optic sensing applications for oil and gas: A nonseismic version for geophysicists	302	152
15 Oct	North America HL	Jean-Paul van Gestel	Time-lapse seismic on the Atlantis Field: How the last 10 years shape the next 10 years	133	73
17 Oct	SEG/AAPG DL	Ge Jin	Distributed fiber-optic sensing applications for oil and gas: A nonseismic version for geophysicists	222	75
23 Oct	SEG/AAPG DL	Ge Jin	Distributed fiber-optic sensing applications for oil and gas: A nonseismic version for geophysicists	227	111
14 Nov	North America HL	Jean-Paul van Gestel	Time-lapse seismic on the Atlantis Field: How the last 10 years shape the next 10 years	211	77
15 Nov	Middle East and Africa HL	Cyril Boateng	Geophysics for sustainable futures: Unlocking opportunities in Africa and the Middle East	106	45
19 Nov	Near Surface	Kamini Singha	Geophysics for discovering new horizons in critical zone science	221	77
13 Dec	Baker Hughes Global Sustainability	Ron Harris	Geological hazards risk assessment and reduction: A case study from South East Asia	163	38
20 Dec	Middle East and Africa HL	Cyril Boateng	Geophysics for sustainable futures: Unlocking opportunities in Africa and the Middle East	131	24

## EDUCATION EVENTS (continued)

<b>Distinguished Instructor Short Course (DISC)</b>				
<b>Date</b>	<b>Instructor</b>	<b>Course</b>	<b>Location</b>	<b>Attendance</b>
16 Jan	Phil Ringrose	Storage of carbon dioxide in saline aquifers — Building confidence by forecasting and monitoring	Houston, Texas, U.S.	38
18 Jan	Phil Ringrose	Storage of carbon dioxide in saline aquifers — Building confidence by forecasting and monitoring	Calgary, Canada	24
6 Feb	Phil Ringrose	Storage of carbon dioxide in saline aquifers — Building confidence by forecasting and monitoring	Perth, Australia	20
8 Feb	Phil Ringrose	Storage of carbon dioxide in saline aquifers — Building confidence by forecasting and monitoring	Perth, Australia	52
12 Feb	Phil Ringrose	Storage of carbon dioxide in saline aquifers — Building confidence by forecasting and monitoring	Adelaide, Australia	23
19 Mar	Phil Ringrose	Storage of carbon dioxide in saline aquifers — Building confidence by forecasting and monitoring	Stavanger, Norway	20
9–10 Apr	Phil Ringrose	Storage of carbon dioxide in saline aquifers — Building confidence by forecasting and monitoring	London/virtual	22
30 May	Phil Ringrose	Storage of carbon dioxide in saline aquifers — Building confidence by forecasting and monitoring	Oslo, Norway	20
14 Jun	Phil Ringrose	Storage of carbon dioxide in saline aquifers — Building confidence by forecasting and monitoring	Oslo, Norway	12
27 Jun	Phil Ringrose	Storage of carbon dioxide in saline aquifers — Building confidence by forecasting and monitoring	Dharan, Saudi Arabia	60
14 Aug	Phil Ringrose	Storage of carbon dioxide in saline aquifers — Building confidence by forecasting and monitoring	Bandung, Indonesia	32
21–22 Aug	Phil Ringrose	Storage of carbon dioxide in saline aquifers — Building confidence by forecasting and monitoring	Virtual	21
26 Aug	Mrinal Sen	Applications of machine learning: Physics and data driven seismic data analysis	Houston, Texas, U.S.	32
3 Oct	Phil Ringrose	Storage of carbon dioxide in saline aquifers — Building confidence by forecasting and monitoring	Virtual	57
26–27 Nov	Phil Ringrose	Storage of carbon dioxide in saline aquifers — Building confidence by forecasting and monitoring	Equinor	20
13 Dec	Phil Ringrose	Storage of carbon dioxide in saline aquifers — Building confidence by forecasting and monitoring	Tokyo, Japan/ virtual	14

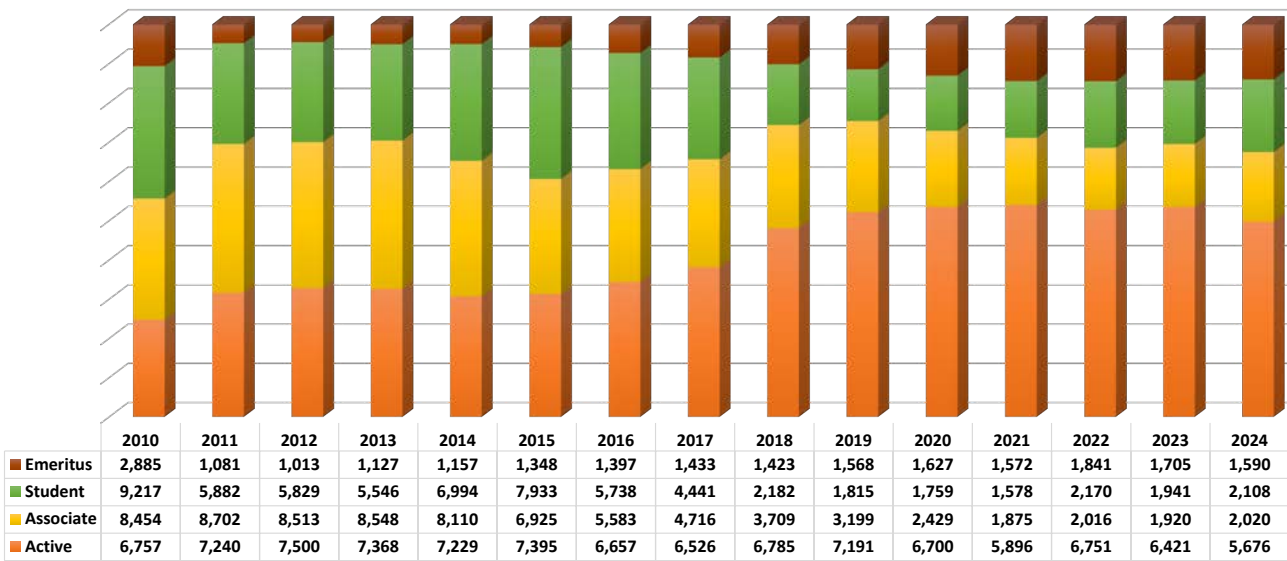
## MEMBERSHIP INFORMATION

# SEG MEMBER TOTALS (2010-2024)



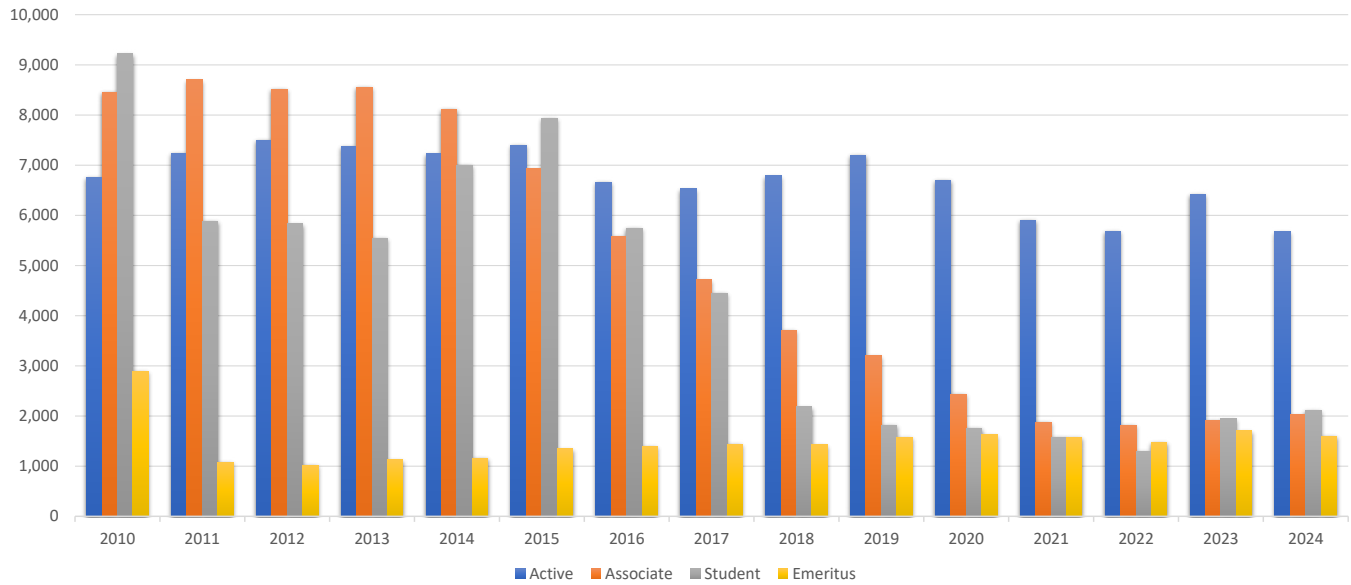
Note: 2010-2017 include free student memberships. Student free programs were discontinued in 2018. 2010 total member count includes Global and Junior Memberships (388 Global & 83 Junior).

## SEG MEMBERSHIP DATA BY MEMBER TYPE (2010-2024)

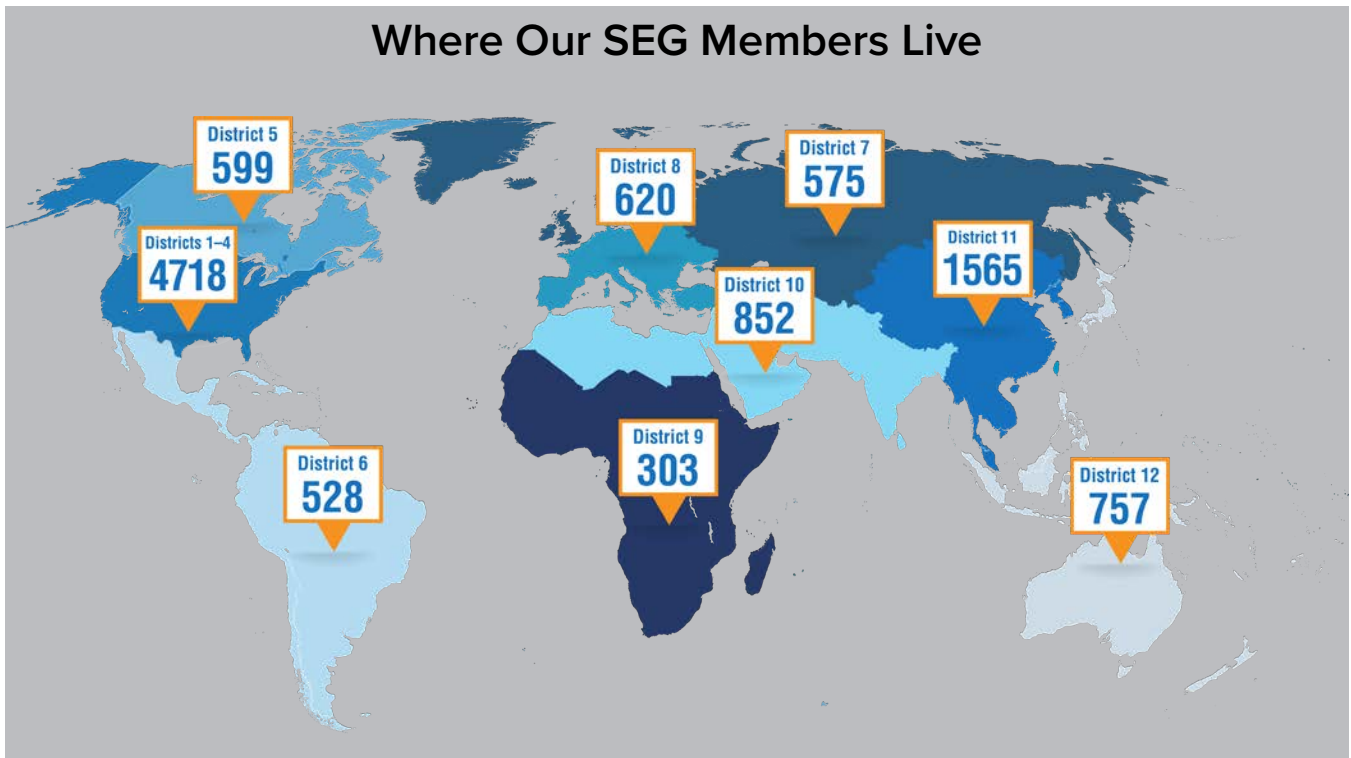


## MEMBERSHIP INFORMATION (continued)

### SEG MEMBERSHIP DATA BY MEMBER TYPE (2010-2024)



### Where Our SEG Members Live



## SECTION ONE:

# Reports from Board of Directors

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ARTHUR CHENG, JOHN EASTWOOD, AND KEN TUBMAN  
**PRESIDENT, PRESIDENT-ELECT,  
 AND PAST PRESIDENT**



This report is from the three presidents on the SEG Board of Directors in 2024: Arthur Cheng (president), John Eastwood (president-elect), and Ken Tubman (past president). As mentioned by Tubman in last year's Annual Report, starting in 2022 with Anna Shaughnessy as president, we have been meeting weekly as a team of three presidents to discuss and progress SEG business. This has been very beneficial in aligning our thoughts and actions with SEG and providing continuity with SEG's strategic direction and governance. This continuity is essential to address long-term challenges. Thus, it is natural that this report comes from the three of us.



This past year, we focused on a number of issues identified from previous years. Together with SEG Executive Director Jim White and SEG staff, changes were initiated under Tubman last year, starting with the formation of the Transformation Task Force and the implementation of some of its recommendations. That work continued this year and will continue past this year into 2025 and beyond. Even now, we are beginning to see results. One of the first things we tackled was the alignment of goals of all parts of SEG with its three subsidiaries: the SEG Foundation, SEAM, and SEG Global Inc. This was a material change, as it involved hiring key staff with industry-leading skill sets in fundraising (Foundation) and geoscience-based experience in project management and leadership (SEAM). SEG Global Inc. has expanded its efforts in Southeast Asia, and we are seeing high-quality technical events and increased membership from this region. All three entities are now aligned with the overall goals and strategies of SEG and are bringing in higher revenues, increased participation, and new opportunities.



In addition, working with White, SEG hired a new marketing director to lead our efforts in transforming SEG into a more modern and digital entity. The new marketing effort should greatly enhance our communication and connections to all stakeholders including exhibitors, members, and supporters. Marketing now has a strong focus on attracting and engaging both the next and current generation of geophysicists for membership and active participation in SEG.

SEG now offers corporate packages to provide a more streamlined and flexible approach for membership for companies. This new membership approach simplifies accounting for the participating

companies and SEG, and it allows more of the companies' geoscientists to become members and more importantly participate in SEG activities.

SEG continued to invest in collaborative opportunities, with IMAGE '24 in partnership with the American Association of Petroleum Geologists being a prime and very successful example.

The SEG staff and Board of Directors have worked together to develop new sources of income. One of the sources is new and increased contributions to Foundation programs. The staff and Foundation Board have been diligent in pursuing support for our various programs such as Geoscientists *without* Borders®, SEG EVOLVE, and a variety of student-focused programs, and they have made good progress. Similarly, the new leadership at SEAM, both staff and Board members, have been looking at new ways to monetize the results of previous SEAM projects, getting additional participants involved with the current CO<sub>2</sub> project and evaluating prospective projects. To achieve that, we have partnered with Advanced Geophysical Technology to market SEAM results.

We continue to look closely at everything we do to identify operational efficiencies. For areas not in our core competency, we are seeking input on ways to reduce our expenses and generate positive revenue. In this day of big data, SEG sits on some

very valuable intellectual property in our publications. The staff and Board are working closely to capture value and leverage our intellectual property through the latest artificial-intelligence applications.

We are also increasing our engagement with our members. SEG membership consists of the top applied geophysicists in the world. We are developing plans so members can help us define the technical content in programs SEG offers such as workshops, special sections in GEOPHYSICS, focused IMAGE sessions, and continuing-education courses, to name a few. We plan to achieve this through online communities, each focusing on a particular technical subject. Two examples of this are the CO<sub>2</sub> and Early-Career subcommittees of the Research Committee as outlined in the President's Page in the June 2024 issue of *The Leading Edge*. We are also engaging our membership through social platforms such as LinkedIn, Basecamp, Instagram, and Slack, and we are looking at others for more-effective member communications.

These are multiyear initiatives, and the progress we have made is a direct result of the hard work of White and the SEG staff, as well as the amazing contributions of all of the SEG volunteers. We look forward to continuing our efforts in 2025 and beyond.

MAURICIO D. SACCHI

## FIRST VICE PRESIDENT



I was a member of the SEG Board of Directors from 2016 to 2017 as editor-in-chief of GEOPHYSICS. I was on the Board again as the second vice president and first vice president from 2022 to 2024. It seems to me that many topics for SEG are perennial, signaling the following core areas for the Board:

- Ensuring financial stability
- Enhancing member services
- Engaging new members
- Ensuring young geophysicists remain with us following graduation, which is crucial for our Society’s survival

It has been an honor and a privilege to serve SEG as the first vice president and previously as second vice president. Reflecting on my time in these roles, I am grateful for everyone involved with collaborative spirit and dedication. I am optimistic about the Society’s future and confident that SEG will continue to grow as a community deeply rooted in the voices and expertise of its members. I hope the Society evolves to be even more member driven, with direct input shaping Board and staff decisions, ensuring alignment with the core science of applied geophysics.

MARIANNE RAUCH

## SECOND VICE PRESIDENT



I have been a member of SEG for many years, as I believe our Society adds significant value to our profession. I am a strong advocate for networking and have participated in numerous SEG and local Society events. These experiences enable me to connect with peers, learn new things, and support both speakers and organizers. SEG offers a wide range of continuing-education courses for all levels, enabling us to deepen our expertise or explore new topics — an essential pursuit during the current energy transition.

I serve as Board liaison for the Gravity and Magnetics and Mining and Minerals Exploration committees, attending two to three committee meetings annually, along with the monthly executive meetings for the Mining and Minerals Exploration Committee. In these meetings, and through ongoing discussions, I advocate for topics of interest and facilitate communication between committees and SEG. These collaborations are invaluable, as similar technologies are often applied across different but related fields, enabling all groups to benefit from one another.

Supporting young professionals is a passion of mine, and I am actively involved in global mentoring efforts. Currently, I mentor a PhD candidate from Nigeria studying at the University of Melbourne and a young professional from Kenya seeking further education in North America, Europe, or Australia. Both receive technical guidance, as well as insights on entering the workforce and maintaining employment.

Mid-career professionals often go overlooked in favor of entry-level and highly experienced individuals. I have begun reaching out to this group to offer support, especially during times of staff reductions or career transitions. I believe more effort is needed to engage this member category, and I see this as a key goal for the upcoming year.

The SEG Board of Directors is highly diverse, with members representing a wide range of backgrounds from around the world. This diversity fosters a robust organization that draws on varied experiences and perspectives. I would like to conclude with mention that I am proud to serve this remarkable organization.

MIKE MELLEN

## TREASURER



SEG's long-term financial situation is sound, and the 2024 results have shown significant improvement and net positive results.

This is the end of my term as treasurer. I welcome Xiaojun Huang as the 2024–2026 treasurer. I would like to highlight all of the hard work and advice from our outstanding Finance Committee including Pete Cramer, Martin Stupel, Ted Stieglitz, Olga Nedorub, Erin Reuber, and Tim Watson. I would also like to commend the great work by the SEG finance staff: Carlos de la Garza, Katie Petrowski, and the accounting team. They have done an excellent job in continuing to make our finance and accounting processes much more efficient and timely.

In 2023, we made several significant changes to our financial practices including the following:

- Appointed a new investment advisor for our long-term investment portfolio (LTP).
- Reviewed and revamped our Investment Policy Statement (IPS) to make fundamental changes to our investment approach.
- Established a Liquidity Access Line (LAL) of credit to moderate our seasonal cash-flow issues.
- Established cross membership between the SEG and SEG Foundation Finance committees (two members each) to improve communications and alignment.

In 2024, we let these changes “settle in” and made a few adjustments:

- Reviewed and adjusted annual spending guidelines/recommendations for the Board.
- Consolidated our cash reserves and long-term investment portfolio, considering the new LAL.
- Consolidated to a single accounting team for SEG and all subsidiaries including the SEG Foundation. This was aimed at improving communication, alignment, and efficiency across the organization.

The past 6-plus years have been difficult, with significant shifts in industry spending and consolidation, membership declines, and the effects of the pandemic. Figure 1 shows the trends in operating revenue, expenses, and net profits. While we have seen gradual improvements, the results through 2023 continued to show an annual loss. For 2024, the SEG Board of Directors approved an operating budget based on a policy of “breakeven or better” results. There was a significant effort toward reducing costs where possible

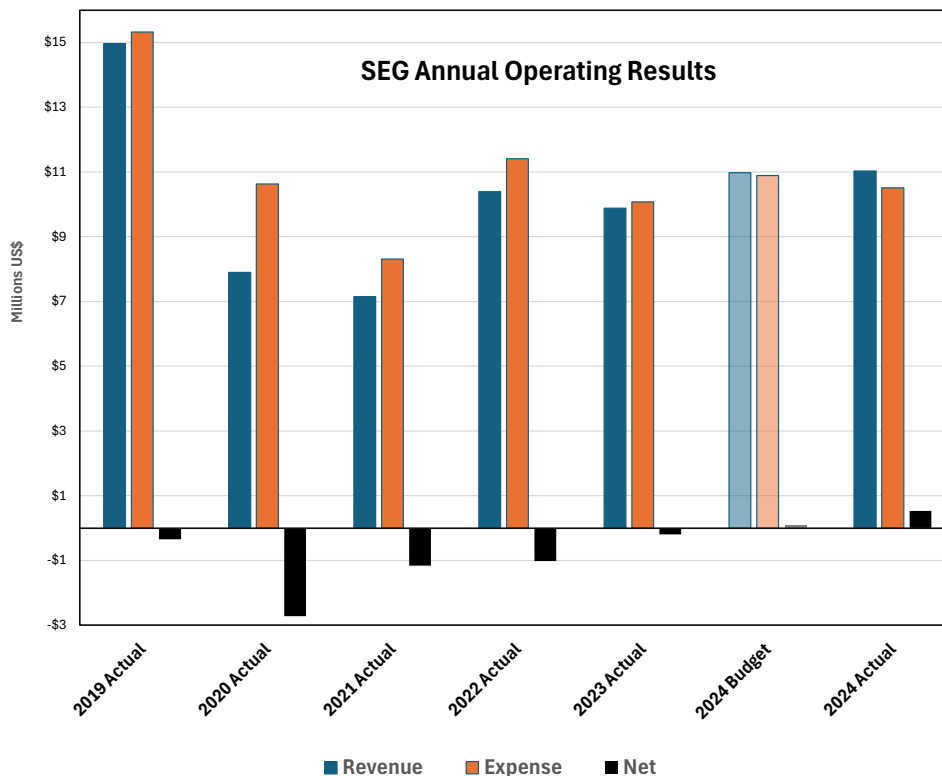


Figure 1. SEG annual operating results (without subsidiaries or investments).

2024 Operating Budget and Actuals			
	2023 Actuals	2024 Budget	2024 Actuals
Revenue	\$9,881,204	\$10,976,224	\$11,035,021
Expense	\$10,072,973	\$10,885,917	\$10,505,901
Operating Net	\$(191,769)	\$90,307	\$529,120

Table 1. Operating budget and actuals (without subsidiaries or investments).

without affecting programs. There was also a push toward increasing revenues through corporate memberships and improved “events” revenues.

As seen in Table 1, the 2024 SEG Operating Budget anticipated a net profit of US\$90,000 versus a 2023 actual loss of \$192,000. The actual result for 2024 was a net operating profit of \$529,000, substantially better than expected. Note that these figures are for the SEG parent entity operating budget and do not include SEAM, SEG Global, SEG Foundation, or investment results.

There were a number of improvements including the following:

- Increased revenue from partnered events, specifically IMAGE, URTeC, and NAPE.
- Increased profits for Middle East events and U.S. workshops.
- Decreased travel and honorarium expenses for continuing education and

Distinguished Instructor Short Course events due to delayed or fewer lectures.

Further, there was a (\$79,000) or (4.7%) decrease in overall program costs, as seen in Figure 2. These were generally due to the timing of Geoscientists *without* Borders (GWB) projects and a decrease in student programs due to fewer student participants and lower program costs. The decrease was not due to budget constraints nor cuts and is expected to recover in 2025.

Regarding the LTP, in last year’s report, I described the changes we made to our investment advisor and IPS, which governs our investments strategies and procedures. This year’s results were particularly good and in line with our goals. Our LTP grew from \$14.5 million at year end 2023 to \$17.0 million at year end 2024 including investment gains of \$1.1 million, interest and dividends of \$0.4 million, and new contributions of \$1.1 million. Our overall gain was 17.4%. Excluding our contributions, our gain was 10.1%. This compares well to our IPS annual target of 6.5%–7%. In addition, we have been monitoring the volatility or implied risk to our portfolio. As of year-end 2024, our portfolio’s annualized standard deviation was 10.9% and is converging toward our target of 10%. Keeping a close eye on this

measure should help us avoid some of the wild swings in the LTP as seen in the past (e.g., 2021–2023).

I should note that the \$1.1 million contribution is the first time since 2021 SEG has put new money back into our LTP. These funds were an unplanned windfall from the U.S. government Employee Retention Credit program. As a result of the pandemic, the U.S. government gave qualified businesses and organizations (including nonprofits such as SEG) a refundable tax credit based on employee impacts of the pandemic. Our finance team recognized our qualifications, applied for, and was granted this refund. The SEG Board of Directors wisely decided to invest this refund in our LTP, rather than distort our annual operating budget.

Another important change that we made in 2024 was to merge our cash reserves account into our LTP. Prior to 2023, when we initiated our LAL, SEG kept a cash reserves account to manage our cash flow and provide for contingencies as needed. However, with the advent of our LAL, we now have a means to borrow funds at reasonably low interest rates to handle our seasonal cash needs. We believe that having both the LAL and the cash reserves is somewhat of a “double” insurance policy. By merging the cash reserves and LTP, we now can put all of our investment funds to

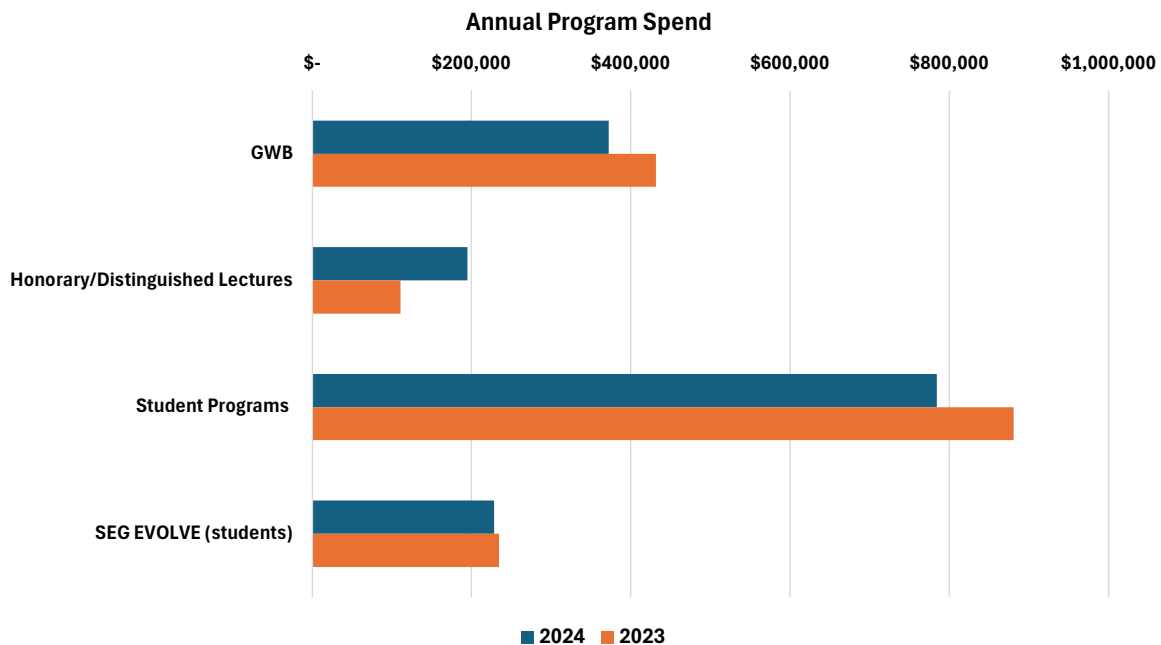
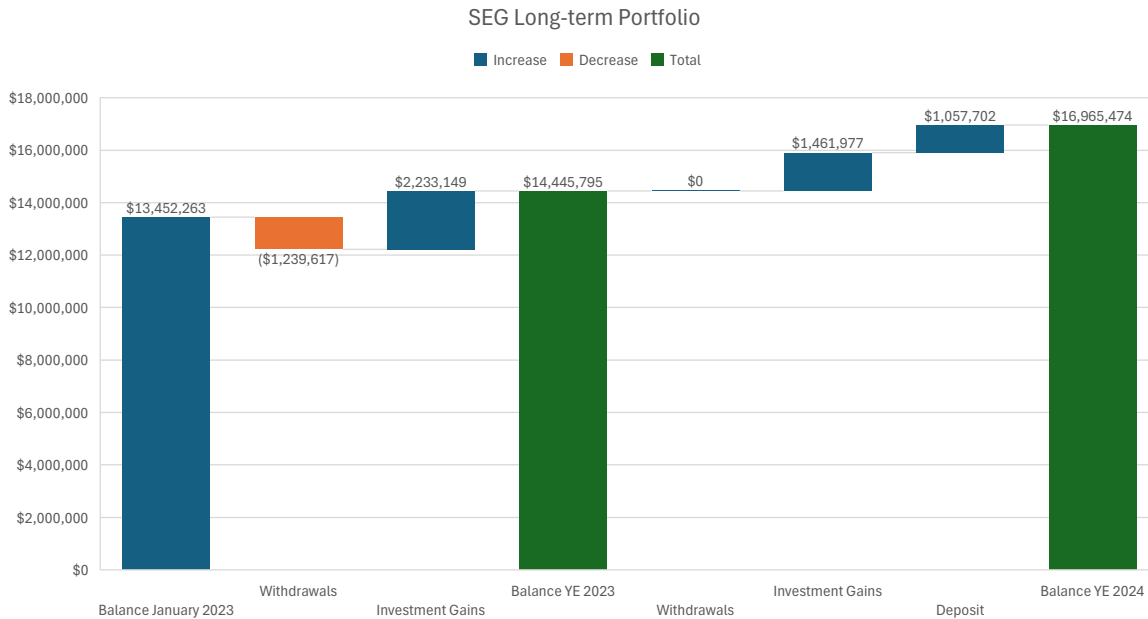


Figure 2. SEG annual program spend.



**Figure 3.** Changes in value of the SEG long-term portfolio.

work for optimum long-term growth. The funds can still be withdrawn if a significant need arises.

Since the advent of our LAL credit line in 2023, the balance has varied from about \$400,000 to as much as \$1.2 million (the credit limit is \$5 million). With improved operating results in 2024, the balance has been paid down to \$100,000 as of February 2025.

Figure 3 summarizes changes in the value of the LTP since 2022. With the advent of the LAL, we did not need to withdraw funds from the LTP in 2024 to supplement short-term operating losses. The LTP is exclusively reserved for investments in new programs and other improvements.

To summarize 2024, we exceeded our revenue budget, made a profit, added to our long-term

portfolio, and paid down a major part of our line of credit. Overall, it was a financially excellent year!

In closing, I would like to reiterate that while SEG is a nonprofit technical professional organization, we do need to make a profit in some areas to support more philanthropic areas such as GWB, scholarships, and other programs. We certainly welcome any new revenue-generating ideas. We do not receive financial support from any government or agency, and all SEG programs are paid for through membership, events, publications, and, importantly, through donations to the SEG Foundation. I ask that you please consider donating to the SEG Foundation Annual Fund. Even small donations (\$10–\$100) add up and make a difference.

**Editor’s note:** *The financial data provided is unaudited and has not been reviewed by an external auditor.*

KYLE SPIKES

## VICE PRESIDENT, PUBLICATIONS



**M**y first year as vice president, publications commenced in August 2023. Serving in this role is a significant honor. The charge of this position is threefold:

- 1) Oversee activities of SEG publications and technical dissemination
- 2) Ensure the alignment of all such activities with SEG missions, goals, and policies
- 3) Ensure the highest standards for technical and scientific integrity in all publications

Our volunteer editors, reviewers, and authors maintain their diligent support to share cutting-edge applied-geophysics research and technology with members and others. The SEG publications staff play a vital role in professionally managing all publications business.

In this position, I serve as Board liaison to the boards and committees that represent SEG publications. This includes GEOPHYSICS, *Interpretation*, and *The Leading Edge (TLE)*; Books Editorial Board; and Translations, Reviews, and Community Content (sunset in August 2023) committees. The leadership of these boards and committees, along with the Technical Program Committee, is represented on the Publications Committee. Within this Annual Report, representatives from these boards and committees describe in detail how each advanced SEG publications in 2023–2024.

During 2023–2024, the SEG Publications portfolio continued to examine its financial health. Publications continue to provide one of the most notable societal benefits, but every benefit requires cost. Several new opportunities have been identified to decrease costs without losing benefits to members. SEG needs to maintain and continue the upward trajectory of our journals, while minimizing financial losses and maximizing products offered to the SEG community.

### ACTIVITY HIGHLIGHTS

**Editorial leadership changes.** The next slate of senior editors for GEOPHYSICS commenced their roles on 1 August 2024. Antoine Guitton is now the editor, Joakim Blanch is the new senior assistant editor, and Alison Malcolm is the past editor. Nine assistant editors currently serve alongside 76 associate editors.

In August 2024, the *Interpretation* Editorial Board underwent a leadership transition. Brad Wallet stepped into the role of editor-in-chief, succeeding his previous position as deputy editor. Sumit

Verma assumed the deputy-editor role. The journal's activities are currently supported by 13 associate editors and 22 deputy associate editors.

The *TLE* Editorial Board is currently chaired by Heather Bedle, who was appointed to the board in 2021. New to the board is G. Didem Beşkardeş. The SEG Yearbook (found at the end of this Annual Report) contains the full list of board members.

**Publications achievements.** The performance of SEG journals in 2024 remained steadfastly strong. *GEOPHYSICS* received an impact factor of 3.0 and a CiteScore of 6.9. Notably, *GEOPHYSICS* achieved its highest ever h5-index of 63 and h5-median of 81, further solidifying its influence within the field. *Interpretation* maintained a solid impact factor of 1.2, while its CiteScore reached a record 3.3. It also achieved its highest ever h5-median score of 51, while its h5-index rose to 26. *TLE* in 2024 reported an h5-index of 26 and h5-median of 39, reflecting its continued impact in the field. These metrics underscore the strength of SEG journals in delivering high-quality impactful research to the geophysics community.

In 2024, SEG published *Machine Learning Methods in Geoscience* by Gerard Schuster, *Forensic Data Processing* by Joe Dellinger, and *Essentials of Seismic Attributes and Impedance Inversion* by Satinder Chopra and Kurt J. Marfurt. Leon Thomsen's memoir

and Mrinal Sen's Distinguished Instructor Short Course book are expected to be published in 2025.

In addition to publishing expanded abstracts from IMAGE '23, the SEG online publications team added expanded abstracts from other SEG-sponsored events including the following:

- SEG Workshop on Fiber Optics Sensing for Energy Applications
- International Workshop on Gravity, Electrical, and Magnetic Methods and Their Applications
- First Tarim Ultra-Deep Oil and Gas Exploration Technology Workshop
- Carbon Capture, Utilization, and Storage Conference and Exhibition
- Latin America Unconventional Resources Technology Conference
- Seventh International Conference on Engineering Geophysics

These abstracts are all freely available to SEG members.

## SERGIO CHÁVEZ-PÉREZ

# DIRECTOR AT LARGE



I have done everything I can to be of some professional service to SEG since 2003. Since then, I have been a part of the editorial team for GEOPHYSICS. I am currently serving as one of the assistant editors. I was the Honorary Lecturer for Latin America in 2015. Since 2022, I have been one of the directors at large on the SEG Board of Directors.

When I was nominated to serve as director at large, I offered to focus on the following areas:

- Support the SEG transformation so the Society becomes indispensable to more individuals and organizations doing applied-geophysical research, teaching, and practice all over the world
- Further promote the interaction with global undergraduate and graduate students, practitioners, researchers, and academicians during our lectures, meetings, workshops, and courses
- Further promote the participation of students and emerging professionals during the challenges of the ongoing energy and urban transitions, and data and workflow transformations
- Further promote and enhance communication, education, research, and outreach, despite language and cultural barriers

These four activities, plus the extra duties I have been assigned, have been my main tasks during my second year on the Board. I think it is very important for me to share my thoughts and experiences, as someone who attended graduate school in the United States but has always worked abroad in Mexico.

In addition, I served as Board liaison for four committees including the Committee for Passive Seismic, Development and Production Committee, Research Committee, and Distinguished Lecture Committee. I was a member of the Technical Program and Diversity, Equity, and Inclusion (DEI) committees for IMAGE '23 and '24. I was also a member of the Latin America Regional Advisory Committee, vice chair of the Committee on Nominations, and chair of the Distinguished Instructor Short Course Subcommittee.

I am convinced, at this stage of my life, that everything is education and communication. Thus, we all value better communication within SEG and among societies. We all want to strengthen closer connections and inspire members to further engage with SEG. We all want to help expand this knowledge organization, its business, and technical footprint. These are ongoing daily efforts from my side.

ANA CURCIO

## DIRECTOR AT LARGE



**I**t has been my honor to serve as director at large for a second year. I had the opportunity to actively participate in important and enriching discussions about the current energy transition, members in transition, and digital transition and how they relate to the future of SEG members and future of SEG.

The committees for which I serve as Board liaison, in higher or lesser degrees are a part of these discussions. They include the Membership Committee, Women's Network Committee, Latin America Regional Advisory Committee, and SEAM Board of Directors. I also served as chair of the Committee on Nominations and Audit Committee. I participated in different activities during IMAGE and am a member of the Research Committee.

### COMMITTEE ACTIVITIES

Activities of the committees for which I serve are highlighted next. Please see their individual reports within this Annual Report for full details.

**Committee on Nominations.** The committee formally submitted its slate of candidates to SEG President Arthur Cheng in February 2024. Official ballots were sent 7 May 2024 to 6692 Voting members who were eligible to vote in this year's election. The annual election had a participation rate of 21.64%.

**Audit Committee.** The Audit Committee held quarterly meetings that followed up the HoganTaylor review of the SEG financial statements. The committee approved the audit before sending it to the SEG Board of Directors for approval. During the process, I participated in communications with HoganTaylor and answered questions regarding SEG internal processes.

**Membership Committee.** The objective of the Membership Committee is to retain and grow an actively engaged membership with requisite knowledge, skills, and values. This is accomplished by providing an environment that brings people together working as one to help accomplish the Society's common goal — promote the science of applied geophysics and the education of geophysicists worldwide. Given the SEG numbers and statistics related to membership demographics, gender, age, etc., the committee interprets and detects the current necessities of the Society and promotes actions that influence the future directions of SEG.

During this period, the committee continued to discuss and explore innovative approaches to attract new members, with a particular focus on engaging younger demographics. The aim during the next period is to actively pursue new members, strengthen communication strategies,

and engage and welcome a dynamic and inclusive community, with particular focus on younger members.

**Women's Network Committee.** The Women's Network Committee was created in 2011 to promote gender parity, celebrate women achievements, raise awareness, and find solutions for challenges that women encounter in applied geophysics and related fields.

During this period, the committee organized six webinars, with a focus on both technical and nontechnical content. During International Women's Month, they organized a panel, movie afternoon, and social-media campaigns. The committee successfully continued the Mentoring365 program and resume-review service, which includes analysis and feedback. The quarterly newsletter was published throughout the year. Committee members increased SEG visibility through LinkedIn and YouTube.

Ask-Me-Anything sessions allowed leaders in industry and academia to provide transparent insight and mentorship to students in the community. A new initiative, the "Never miss an opportunity: Practice your elevator pitch" workshop series was launched in the fourth quarter of 2024.

For IMAGE '24, the committee collaborated with a number of groups to organize Gathering Place activities. The committee hosted a luncheon and breakfast, several panels, Ask-Me-Anything sessions, a combined women's networking booth, and more. One highlight was celebrating past and current women leaders in professional societies, where the three SEG past women presidents were recognized for their contributions.

Additionally, the committee held the first edition of a book club. Four sessions were conducted monthly. The selected book was *How Women Rise* by Sally Helgesen and Marshall Goldsmith.

**SEAM.** With the aim of finding opportunities for broader technical projects and providing opportunities for greater participation, SEAM is in a current business model evaluation. This led to a Bylaws revision and changes in the SEAM Board of Directors. The current objectives are to focus on providing direct contributions to science, engaging

more companies in SEAM, broadening technical scope, and providing additional revenue for SEG.

### LATIN AMERICA CONCERN

At SEG, we recognize the vital importance of Latin America in the field of applied geosciences, and we are committed to elevating our engagement across the region. As we navigate the evolving landscape of our discipline, Latin America will remain a key area of focus for SEG.

In 2023, we launched the first edition of our virtual student mentoring program, in collaboration with the Asociación Colombiana de Geólogos y Geofísicos de la Energía (ACGGP). The positive response and success of this initiative has inspired us to expand our reach; our next iteration will also involve the Sociedade Brasileira de Geofísica (SBGf), fostering collaboration across multiple nations.

We are also revitalizing our Visiting Geoscientist initiative, facilitating impactful visits to institutions like Universidad Nacional de Ingeniería (UNI) in Lima, Peru, and an upcoming engagement with Universidad de Costa Rica (UCR). These visits are designed to nurture talent and strengthen the community of geoscientists in the region.

Our Latin America Regional Advisory Committee (LARAC) continues to provide valuable educational opportunities, as demonstrated by our recent webinar series, which featured topics such as "Advancements in geophysical methods for critical mineral exploration" and "Entrepreneurship in geosciences." We are excited to announce our next webinar will be conducted in Spanish, focusing on the integration of open-source code and artificial intelligence in the geosciences.

Looking ahead, we are in the planning stages for the 6<sup>th</sup> Latin America Virtual Student Conference, which promises to be another enriching experience for students and professionals alike.

At SEG, we are enthusiastic about deepening our connections with members across Latin America. Plans are in place that will aim to strengthen the geoscience community in the region further, and we look forward to sharing news about those plans in the coming months.

LILLIAN FLAKES

## DIRECTOR AT LARGE



**S**erving as director at large for SEG has been an honor and a transformative experience. By collaborating with a dedicated Board of Directors, I contributed to advancing the Society's mission (ensuring its growth, health, and adaptability to the evolving demands of applied geophysics). This role enriched my understanding of the field and provided the privilege of working alongside brilliant colleagues while engaging with innovative ideas.

My involvement with SEG has taken me virtually around the globe, offering a deeper appreciation for the exceptional work happening across diverse disciplines and regions. Volunteering has been both purposeful and rewarding, providing valuable insights into the dynamic changes shaping our profession.

I am especially grateful to SEG's leadership and staff, whose unwavering dedication and efforts support members at every career stage — from students to seasoned professionals. Connecting with professionals from academia, industry, and the nonprofit sector has been a profoundly inspiring experience, pushing me to grow and motivating me to contribute my very best.

During my first year on the Board, I served as liaison to the Justice, Equity, Diversity, and Inclusion (JEDI) Committee and as a member of the Audit Committee. I also actively supported the SEG Foundation and its initiatives. My work on these committees has been incredibly rewarding, and I am consistently inspired by the commitment and dedication of SEG members. Their countless hours and generous contributions of time have been instrumental in our shared success.

### JEDI COMMITTEE

As Board liaison and chair of the JEDI Committee, I supported the introduction of the JEDI Ambassadors program, which began training in October 2024. Led by Ramesh Neelamani, this initiative equips members from SEG committees to advocate for JEDI principles throughout the organization. The first participating committees included Distinguished Lecture, Research, Mining and Minerals Exploration, Membership, Foundation Board of Directors, Women's Network, *The Leading Edge* Editorial Board, Distinguished Instructor Short Course Subcommittee, and Near-Surface Geophysics Technical Section.

The JEDI Committee actively worked to inform members and showcase the value of JEDI initiatives through various efforts:

- The *Geoscientists Around the Globe* feature in *The Leading Edge*, spearheaded by Eileen Martin, showcased the career

journeys and chosen disciplines of geoscientists, highlighting their global contributions to the field.

- For IMAGE '24, Cucha Lopez served as cochair of the DEI Committee, while Martin and Neelamani prepared presentations on JEDI accomplishments and efforts to educate members.
- Martin also participated in the Seismic Soundoff podcast, offering practical advice and resources for professionals aiming to foster positive change in their environments.
- Additionally, I represented SEG in intersociety meetings organized by the American Geosciences Institute, ensuring SEG's JEDI initiatives were aligned with broader geoscience community efforts.

These initiatives reflect the committee's commitment to advancing justice, equity, diversity, and inclusion across SEG and the broader geoscience profession. I am also deeply grateful to Staff Liaison Jennifer Cobb for her invaluable support in driving these efforts forward.

#### **AUDIT COMMITTEE**

As a member of the Audit Committee, I had the privilege of contributing to the Society's financial oversight by reviewing reporting processes, ensuring compliance with regulations, and evaluating internal controls to uphold SEG's financial integrity. This role also involved supporting risk-management efforts, refining governance policies, and safeguarding the resources that enable SEG to fulfill its mission. I am deeply appreciative of the leadership and expertise of Committee Chair Ana Curcio, Treasurer Mike Mellen, and staff members Carlos de la Garza and Katie Petrowski, whose dedication and collaboration were instrumental in achieving our goals. Together, we worked to maintain the highest standards of accountability and transparency for the benefit of SEG and its members.

In 2025, I am honored to serve as chair of the Audit Committee, where I will work to seamlessly support and strengthen the financial health of the Society.

#### **SEG FOUNDATION**

I have had the honor of volunteering with the SEG Foundation as a Trustee Associate. In this role, I participated in recognition events that highlight the vital programs and initiatives made possible through the generosity of our donors. I also dedicated time as a panelist, sharing my career journey with students in Houston-area STEM programs to inspire and guide future geophysicists. Additionally, I played an active role in a campaign to drive donations to the Foundation, helping to advance its mission. I am deeply grateful to Rocco Detomo for his exceptional leadership of the Foundation, and to Sarah Hewitt and Sarah Castro for their hard work and dedication in supporting its initiatives. Supporting SEG today strengthens the global community of applied geophysics, and I encourage others to contribute to this important cause.

Looking ahead to the upcoming year, I am committed to building on the foundation we have established, expanding the impact of our programs, and continuing to foster meaningful connections within the geophysics community. My goal is to drive further innovation, deepen collaboration, and ensure that SEG and its initiatives continue to thrive, serving and inspiring future generations of geophysicists. I deeply appreciate the opportunity to serve our members and look forward to contributing to the continued growth and success of these efforts, creating lasting value for both the organization and its members.

OLGA NEDORUB

## DIRECTOR AT LARGE



During my tenure as director at large (2022–2024), I had the privilege of working alongside a group of incredibly talented and dedicated individuals within SEG. Together, we navigated numerous initiatives and projects that have significantly advanced our mission and goals. This term concludes my service. I am extremely grateful for this opportunity and thank everyone who provided encouragement, support, and opportunity to learn and grow.

One of the most impactful projects this year was my involvement with the Water Resources Management System (WRMS) review. SEG was approached by representatives from the Society of Petroleum Engineers (SPE) and American Association of Petroleum Geologists (AAPG) to consider cosponsoring a new document modeled on the Petroleum Resources Management System. Under the leadership of President Arthur Cheng, we formed a broad task force that brought together experts from various domains within SEG and beyond. Our collective efforts included reviewing the draft WRMS document, documenting our views, drafting a motion to the SEG Board, and creating a list of recommendations on how SEG could engage more broadly in water-resource conservation. This initiative is crucial because water-resource management is becoming increasingly important across multiple sectors including oil and gas, disposal, renewable energy, and agriculture. Our expertise in geophysics can play a significant role in sustainable development and the management of water resources.

In addition to the WRMS task force, I was actively involved in reviewing field-camp applications for the Health, Safety, Security, and Environment Committee. This task required a meticulous evaluation of safety protocols and the educational value of proposed field camps to ensure they met SEG's high standards. The collaborative efforts of committee members have been instrumental in maintaining the quality and safety of these educational experiences, which are vital for the professional development of our members.

My participation in the Finance Committee was another significant aspect of my role. During our regular meetings, we reviewed financial reports, created budgets, and discussed investments, challenges, and successes. These discussions provided us with a comprehensive understanding of the financial drivers behind SEG's operations. Strategic financial management has been essential in ensuring that SEG remains a thriving society capable of supporting existing programs, offering new benefits, and maintaining a stable and sustainable future.

Reflecting on 2022 and 2023, I was honored to serve as a Board liaison for multiple committees, participate in the SEG/SEG Foundation Alignment and Strategic Options task forces, contribute to the SEG/AAPG Organizing and Oversight committees for

IMAGE '22, serve as Technical Committee chair in 2022, and provide unwavering member support.

Our mission has always been to uphold SEG's role in exploration, broadly defined as the discovery of information or resources. I believe that geophysicists with steady employment form a strong membership base, those with interest and purpose engage and give back, and geophysicists around the world who feel supported form our robust Society. Our efforts have been directed toward increasing the demand for geophysics globally, providing value to members and the public, and supporting SEG activities and growth resources.

As we look to the future, I encourage all members to engage fully with SEG. We face several ongoing challenges including supporting students and early-career professionals, maintaining a long-term membership base, and diversifying our technological focus. Other important concerns include data integration, handling big data, and keeping up with advances in artificial intelligence and machine learning. For the near-surface community, mitigating effects of the ever-changing environment (e.g., coastal erosion and natural disasters in populated areas), monitoring emissions, staying ahead of aging infrastructure, and implementing impactful cultural projects are very important. For academia, acquiring sustainable long-term funding for academic research and data availability are two key priorities. Diversity and inclusion within the geophysical community are ongoing discussions, aiming to address disparities and create a more inclusive environment. Education and training need continuous improvement to keep up with industry standards, while collaboration across disciplines is crucial for tackling global issues. Public engagement and effective communication of scientific findings are vital for raising awareness. Ethical considerations, such as data privacy, are increasingly important. Career development and job security, especially

for early-career professionals, are major concerns, especially in the "up-and-down" energy business.

In the oil-and-gas industry, maximizing recovery from existing fields through advanced techniques such as new acquisition methods, full-waveform inversion, 4D seismic monitoring, etc. is crucial. Energy transition and decarbonization are pressing issues. Geophysicists help by identifying and developing carbon capture and storage sites. Digital transformation and data management optimize operations and reduce costs. Geopolitical and economic uncertainties require diversification of energy portfolios, with geophysicists identifying new reserves and alternative energy sources. Environmental and regulatory compliance is critical, with geophysicists conducting impact assessments and monitoring subsurface conditions to prevent issues such as groundwater contamination.

By working together, we can address these challenges and continue to advance the field of geophysics. Your services, active participation, and innovative ideas are vital to overcoming these obstacles and ensuring a thriving future for our Society. Let's continue to support each other and advance the field of geophysics together!

CATHERINE TRUFFERT

## DIRECTOR AT LARGE

**F**or my second year as director at large, I was Board liaison for the Near-Surface Geophysics Technical Section, Geoscientists *without* Borders® (GWB) Committee, AGU-SEG Collaboration Committee, and European Regional Advisory Committee.

Each of these committees plays an essential role in SEG. The mission of the AGU-SEG Collaboration Committee is to encourage collaboration between the two global complementary organizations, the American Geophysical Union (AGU) and SEG, in all geophysical disciplines. The European Regional Advisory Committee aims to advise, promote, and facilitate the global nature of SEG on a regional basis. The GWB Committee is a professional network of volunteers who run the eponymous program aimed at bringing humanitarian aid to communities through a range of earth science disciplines. Humanitarian geophysical projects responding to strong social issues are simultaneously carried out across the globe by talented senior geophysicists, young professionals, and students. Last, but not least, the Near-Surface Geophysics Technical Section is committed to developing best practices in applied geophysics that are not aimed at the oil exploration industry. This field is constantly growing in a world that is moving toward the energy transition and under demographic pressure, specifically in cities and along the coasts. The section focuses on sharing and communicating the theoretical advances, technological developments, and best practices that are essential to the advancement and effective application of geophysics.

Over the past year, I have been delighted to see the fruits of the efforts of everyone involved in the governance and activities of SEG. Among the significant success, I highlight the unfailing commitment of young professionals. Against a backdrop of a shortage of geoscientists, these young talents have not hesitated to multiply their initiatives to pass on their passion, strengthen collaborations of all kinds, and bring scientific subjects up to the challenges of today and tomorrow.

My role has not only been to pass requests of various committees on to the Board, but also to ensure that suggestions are taken in a balanced and relevant way, while taking into account the organization's priorities and long-term challenges. I hope I have been able to contribute to more informed and harmonized decision making, while maintaining a constructive and open dialogue between the various working groups.

This year, I was also involved in IMAGE, which is a key event for SEG. Specific sessions (oral and poster), postconvention workshops, and the forum provided by the Near-Surface Geophysics Pavilion enabled us to present the latest scientific advances and debate major issues. The



mix of academic and industry players, of all sizes and disciplines, gives IMAGE a unique position. Added to this are smaller events, organized according to theme and in different geographic regions, completing the weaving of the ecosystem essential to SEG.

My aim has always been to ensure that the Board benefits from a global and inclusive vision while guaranteeing consistency with our organization's strategic objectives. My commitment for the coming year remains to continue to support this collaborative and inclusive dynamic, ensuring that we maintain fluid communication and a shared vision of long-term challenges.

## CONSTANTINE TSINGAS

# DIRECTOR AT LARGE

This was my first term serving on the SEG Board of Directors as director at large. As a novice in this volunteering professional activity, I tried to find my bearings while navigating in the vast SEG organization. I quickly realized the responsibilities and continuous support and engagement that we owe our more than 10,000 members and affiliate societies.

In early October 2023, I received a phone call from SEG Executive Director Jim White, informing me that, due to a business conflict, the SEG president would be unable to attend the Society of Petroleum Geophysicists' (SPG) 14<sup>th</sup> Biennial International Conference and Exposition in Kochi, India. White asked if I would be available to represent SEG on his behalf. It took only a few minutes to gladly accept this task because it was obvious that SEG's attendance at this meeting would contribute to our strategic role in the conference and presence in the area. Therefore, I am sharing a summary of the highlights and insights extracted from the meeting.

The conference was a three-day event, and about 800 delegates attended from 3 to 5 November 2023. The conference was centered around the theme, "New age geosciences: A fulcrum for energy trilemma." The event was well received and appreciated by a diverse range of attendees including professionals from exploration and production companies and societies, as well as students, academicians, and research scholars from various universities and institutes. SEG's attendance and participation was greatly acknowledged by the organizers of the event, and SEG's continuous efforts in collaborating with SPG were appreciated.

Later in the year, I gave a couple of seminars to undergraduate and graduate students at King Fahd University of Petroleum and Minerals (KFUPM), where SEG has a student chapter made up of 21 students.

Looking ahead to an exciting next term, I will serve on two committees. The first is the Bylaws Committee as a Board liaison, with Kim Guyer as committee chair. The second is as vice chair of the Committee on Nominations, with Sergio Chávez-Pérez as committee chair. In addition, I will continue to do the following:

- Liaise and connect with local geoscience societies (e.g., Dhahran Geoscience Society)
- Strategize collaborative workshops and seminars, enabling knowledge transfer from experts and leveraging the technical



advances of various fellow organization members

- Assess the need for Distinguished Instructor, Honorary Lecture, and Distinguished Lecture courses and presentations
- Contribute to the success of IMAGE '25
- Support local SEG student chapters at KFUPM, King Abdullah University of Science and Technology, and around the Middle East
- Seek corporate sponsorships

Finally, in alignment with future trends in the energy transformation, I will ensure that SEG and the science of geophysics plays a critical role in the world's sustainability goals by fostering technologies related to CO<sub>2</sub> sequestration and monitoring, geothermal, hydrogen, and mineral exploration activities.

ALLEN J. BERTAGNE

## CHAIR OF THE COUNCIL



The Council is one of SEG's two governing bodies whose key roles and responsibilities include the following:

- Promoting cooperation between SEG and Associated Societies around the world
- Providing a forum within which the members from all parts of the world can express their views
- Approving the Annual Report and dues increases
- Providing advice to the SEG Board of Directors

The Council, for the 2023–2024 session, included 75 representatives from each SEG Section, Associated Society, Technical Section, and geographic district, representing all regions of the world. We also had 18 special advisors participating, making the Council the largest “committee” within SEG. This gives the Council the Society’s broadest human reach and provides the most effective forum for members to express their points of view, hence the Council’s tagline, “The member’s voice.”

### COUNCIL ROLES

The 2023–2024 session was another busy one, during which the Council continued to fulfil the earlier noted responsibilities and make other key contributions to the Society:

**Roles 1 and 2.** The Council met via Zoom on average every two weeks and covered a wide range of topics, partly driven by requests from the SEG Board (of which the chair of the Council is a member), as well as other activities originating from Council discussions.

Given the significant number of work sessions, representatives and advisors can attend as their schedules allow. Each session is followed up with a copy of the presentations from the meeting, a meeting summary, and video recording of the meeting. With this extensive communication, any Council participant is fully apprised of ongoing developments, can review what is most important to those they represent, and communicate with them when necessary via e-mails initiated by SEG staff.

During the year, considerable time was allocated to the topic of the next generation, one of the priorities established by a vote at the 2023 Annual Council Meeting. SEG staff members actively engaged with student programs joined us on several occasions, and the executive director presented the slide deck used when visiting university campuses to explain the importance and value of SEG membership. The benefit of having a broad and diverse Council was illustrated as different representatives identified ways in which the message could be tailored to those they represent. The slide deck was therefore

shared with the Council, and representatives were encouraged to modify certain slides and focus the message for their specific stakeholders.

One of the high points of the year was the visit from the president of the Bucharest Student Chapter, Daria Maciuca, to explain the activities that the chapter has undertaken to communicate the importance of geophysics to those in their community. The impressive efforts were recognized and appreciated by all, showing that new ideas and the ability to promote SEG are clearly independent of the age of the individual doing the communication.

**Role 3.** A major effort, initiated in the 2022–2023 Council, was continued as we refined new policies and procedures for member misconduct allegations. The existing procedures had considerable limitations, which were identified during the previous implementation of the process.

A task force was established under Ray Earley of District 4 and supported by a team of key Council members, staff, and a Board representative (Figure 4). For more than a year, this task force patiently expanded the Policies and Procedures to address situations that had not been previously recognized, while ensuring a consensus among the task-force members. The quality of the work was clear and resulted in the rapid passage of the proposed new Policies and Procedures in a formal Council vote.

The document was next forwarded to the Board, who consulted with attorneys and made further refinements. The final version of the Policies and

### Misconduct Allegations Task Force

Chair: Ray Earley (District IV)  
 John Duhault (District 5)  
 James Shadlow (District 12)  
 Alan Fom (District 7)  
 Tracy Stark (District 2)  
 Shannon Jeffries (District 4)  
 Joseph Reilly (District 1)  
 Mandi Duckworth (staff)  
 Ted Bakamjian (former staff)  
 Moira Watson +1 (SEG legal counsel)

**Figure 4.** Misconduct Allegations Task Force participants.

Procedures was approved by the Board at the IMAGE Board meeting in September and are now in effect.

Misconduct allegations have fortunately been rare in the history of SEG. This shows that while we can have widely varying views related to the technical aspects of geophysics, we are a well-behaved group of professionals!

**Role 4.** No dues increases were proposed this year, but the Council continued to work on improving the Annual Report to ensure that it captures the essential information of the Society and communicates that information, including Financials, in a way that can be easily understood by members who are the “shareholders” of the Society. The Annual Report is the most-organized and comprehensive compilation of the essential information related to the Society and its business. As a result, any active or aspiring committee or Board member can benefit from keeping this document handy on their desktop.

We were pleased this year to finally implement Council Medal Awards, which recognize exceptional service and contributions to the Council. The Council Medal had been established in 2012 but had never been awarded, resulting in a significant “recognition backlog.”

Given the long time during which awards were not given, it was a pleasure to retroactively recognize the enormous contributions made to the Council by Mike Gaul, Lee Lawyer, and Gustavo Carstens. A brief summary of their contributions to the Council and photos of the award are shown in Figures 5 and 7.

We also implemented recognition of Meritorious Service for the first time and the recipients were Ray Earley, James Shadlow, and Alan Fom (see Figure 6). There was unanimous agreement that our Parliamentarian, Mandi Duckworth, also deserved great recognition for her many contributions to the Council and her citation is shown (Figure 8).

### OTHER TOPICS

The Council provides important insight and experience in the workings of all parts of SEG and is excellent training for future roles in SEG, including the Board. We were pleased to see in the 2024 election, that Professor Joseph Ebeniro (District 10) was elected by the full membership to be a new director at large on the Board. I am certain that he will not be the last person with Council experience to be elected to the Board of Directors. The 2024 election also resulted in 12 new district representatives, who

were voted in by the members in their own districts, resulting in an updated Council (see Figure 9).

Every three years, an election is held for the new chair and vice chair of the Council, who are elected exclusively by the Council members. This year, the Council elected Ge Jin (chair) and Peter Eick (vice chair), who took office upon conclusion of IMAGE. I am confident that Messrs. Jin and Eick will ensure that the Council will continue its key role and contributions to the Society over the next three years.

**CLOSING COMMENTS**

It has been a great honor and pleasure to have served as chair of the Council from 2021 to 2024 and to have implemented many innovations that hopefully will continue to benefit the Society for years

to come. I want to thank for their service over the last three years all Council representatives, special advisors, the ever-alert and engaged Vice Chair John Duhault and our Parliamentarian Mandi Duckworth.

During the 2021 to 2024 term, we established a friendly community that could talk easily about any topic related to the advancement of the science and profession of geophysics while also engaging with the greater SEG community. I am satisfied that the Council and SEG are better places today as a result of our extensive efforts.

I wish much success to all of those I have worked with on the Council and the Board over the last three years and look forward to the next time that our paths cross, whether within SEG or in another context.

<b>MIKE GRAUL</b>
Active Council representative from 2000 to 2012
Champion for continuation of the Council and expansion of role
Key contributions to the new (2010) Bylaws
First chair of the Council (2012–2015)
Continuing support of Council after 2015
<b>LEE C. LAWYER</b>
Active Council representative from 2000 to 2012
Champion of retention of the Council and expansion of role
Key contributions to the new (2011) Bylaws
Chair of the Council (2015–2018)
Continuing support of Council after 2018
<b>Other contributions to SEG:</b>
President (1987–1988)
Longest running column and reportedly “most read” in <i>TLE</i> (From the Other Side)
Honorary member (1992)
<b>GUSTAVO CARSTENS</b>
Founding Member (1994) AAGGP (Argentina)
Council representative of AAGGP 2000–2018
Leader in the globalization of SEG
Chair of the Council (2018–2021)
Displayed exemplary leadership in expanding the role and contributions of the Council ( <a href="#">TLE President’s Page</a> )

**Figure 5.** Contributions of Mike Graul, Lee Lawyer, and Gustavo Carstens to the Council.



**Figure 6.** Meritorious Service awards are presented to Ray Earley, James Shadlow, and Alan Fourn at IMAGE '24.



**Figure 7.** Awards are presented during IMAGE '24. Note that Mike Graul was unable to attend in person.



Figure 8. A Meritorious Service award is presented to Mandi Duckworth during IMAGE '24.



**LEGEND**

- DISTRICT 1: HOUSTON
- DISTRICT 2: GREATER TEXAS
- DISTRICT 3: SOUTHWEST UNITED STATES
- DISTRICT 4: NORTH AND EASTERN UNITED STATES
- DISTRICT 5: CANADA
- DISTRICT 6: LATIN AMERICA AND CARIBBEAN
- DISTRICT 7: NORTH EUROPE
- DISTRICT 8: SOUTH AND CENTRAL EUROPE
- DISTRICT 9: SUB-SAHARAN AFRICA
- DISTRICT 10: MIDDLE EAST, NORTH AFRICA AND WEST CENTRAL ASIA
- DISTRICT 11: ASIA
- DISTRICT 12: PACIFIC

**BECOME A COUNCIL MEMBER** We are currently at an exciting moment in SEG's history, having initiated a transformation aimed at ensuring that we continue to be the leading international society for applied Geophysics. If you are interested in helping to shape SEG's future, and interacting with colleagues around the world in doing so, consider running as a Council candidate at the next election! For more details please contact Allen Bertagne (abertagne@brtenergy.com), John Duhault (starbird@telus.net), or Mandi Duckworth (mduckworth@seg.org).



Figure 9. The 2024–2025 Council poster is shown here and available to download from [here](#).

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# Reports from Committees

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## ADVISORY

COMMITTEE CHAIR: ANNA SHAUGHNESSY  
BOARD LIAISON: ARTHUR CHENG  
STAFF LIAISON: JIM WHITE

### EXECUTIVE SUMMARY

The Advisory Committee had no activity during this term.

## AGU-SEG COLLABORATION

COMMITTEE CHAIR: JOSH SELLARS  
BOARD LIAISON: CATHY TRUFFERT  
STAFF LIAISON: LAURIE WHITESSELL

### EXECUTIVE SUMMARY

The AGU-SEG Collaboration Committee has updated its membership, developed workshops, collaborated on hydrogeophysics webinars, and conducted joint technical sessions at each other's annual meetings.

### HIGHLIGHTS FROM THE PAST YEAR

The committee broadened its specializations while retaining and reinvigorating the focus on near-surface geophysics and hydrogeophysics, in particular.

The American Geophysical Union's (AGU) process for submitting joint workshop proposals changed in 2024. All proposed joint workshops operated by AGU must go through the Chapman Conference process, which can add time to the acceptance process.

The joint Geothermal Workshop, which will take place in Salt Lake City, Utah, in June 2025, is on track to be a successful event.

Members of the hydrogeophysics subcommittees came together to develop a proposal for a preconference theory and hands-on workshop focused on nuclear magnetic resonance. Due to an increased number of proposals, AGU ultimately did not accept the proposal. However, the workshop idea was transformed into a joint workshop proposal for the committee for 2026. Organizational efforts are currently under way.

## AUDIT

COMMITTEE CHAIR: ANA CURCIO  
BOARD LIAISON: MIKE MELLEN  
STAFF LIAISON: CARLOS DE LA GARZA

### EXECUTIVE SUMMARY

The Audit Committee met with independent auditors in June 2024 to review and approve the 2023 audited financial statements.

### HIGHLIGHTS FROM THE PAST YEAR

The Audit Committee's role is to ensure that a proper process is followed, policies and procedures are in place, and risk is adequately managed. The 2023 audit included the consolidated statements of financial position (as of 31 December 2023 and 2022), related consolidated statements of activities, functional expenses and cash flows for years then ended, and related notes to the consolidated financial statements. The committee met with external auditors in early June for a thorough review of the audit. Once approved by the committee, the 2023 audited financials were presented to the SEG Board of Directors for acceptance. The audited financial statements were then inserted into the 2023 Annual Report, which was approved by the SEG Council in June 2024.

## BOOKS EDITORIAL BOARD

COMMITTEE CHAIR: UMAIR BIN WAHEED  
BOARD LIAISON: KYLE SPIKES  
STAFF LIAISON: JENNIFER COBB

### EXECUTIVE SUMMARY

The SEG Books program continues to be a vital part of the Society's mission to provide state-of-the-art information on applied geophysics to a global audience. SEG publications serve as an essential resource for students, researchers, and practitioners, helping them stay informed on the latest scientific and technological advances. This year, the board has made substantial progress in expanding the SEG catalog with new high-quality publications and advancing several other book projects that are approaching completion. We recognize the dedication of our board members and the exceptional efforts of Jennifer Cobb who has been of immense support to the board since the

departure of former staff liaison, Susan Stamm, who left SEG in October 2023 due to medical reasons.

### HIGHLIGHTS FROM THE PAST YEAR

The SEG Books program has continued to produce high-quality publications, with significant titles released this year:

- *Forensic Data Processing* by Joe Dellinger, based on his 2021 Distinguished Instructor Short Course (DISC), encourages geophysicists to think critically about the seismic data they process. Dellinger explores how data are recorded and what hidden insights may be lost during traditional processing. By examining the “noise” that algorithms typically discard, he challenges readers to uncover valuable stories within their data, offering fresh perspectives on how to understand and utilize what is often overlooked.
- *Machine Learning Methods in Geoscience* by Gerard Schuster offers a comprehensive guide to applying machine learning to geoscience problems. The book focuses on supervised learning, particularly neural networks, and their use in processing seismic data. With practical case studies and computer programs integrated throughout, it covers a wide range of applications, from noise reduction and velocity analysis to seismic interpretation. This resource provides both theoretical foundations and hands-on exercises to equip geophysicists with the tools they need to apply machine learning in their work.

In addition, *Essentials of Seismic Attributes and Impedance Inversion* by Satinder Chopra and Kurt Marfurt is set to be published in October 2024. Notably, Leon Thomsen’s memoir has nearly completed the copy-editing phase, and work will soon commence on Mrinal Sen’s DISC book. These efforts reflect the board’s ongoing commitment to expanding SEG’s catalog with innovative and impactful publications. Several other manuscripts are currently under review or in the early stages of development, ensuring continued contributions to the field of applied geophysics.

## BYLAWS

COMMITTEE CHAIR: R. KIM GUYER

BOARD LIAISON: CONSTANTINE TSINGAS

STAFF LIAISON: MANDI DUCKWORTH

### EXECUTIVE SUMMARY

This year, the Bylaws Committee reviewed 11 sets of student-chapter Bylaws. The committee did not receive any requests to review proposals from the membership or SEG Board of Directors that required amendments to the Bylaws.

### HIGHLIGHTS FROM THE PAST YEAR

The Bylaws Committee is tasked with reviewing all proposals from the membership and SEG Board of Directors that require amendments to the Bylaws. In addition, the committee reviews all new or amended Bylaws of sections and student chapters.

This year, the committee reviewed 11 sets of student-chapter Bylaws:

- Ahmadu Bello University
- Baku State University
- Ceara Federal University
- China University of Mining and Technology
- Rice University
- Tribhuvan University
- Universidad de Santander
- Universiti Kebangsaan Malaysia
- University of Botswana
- University of Science and Technology of China
- University of Trieste

## DEVELOPMENT AND PRODUCTION

COMMITTEE CHAIR: MARIANA GHERASIM

BOARD LIAISON: SERGIO CHÁVEZ-PÉREZ

STAFF LIAISON: STEVE BROWN

### EXECUTIVE SUMMARY

The Development and Production Committee had another active year. Committee members continue to be involved in SEG education and professional-development efforts, collaboration with other professional societies, and organization of conference sessions and workshops.

### HIGHLIGHTS FROM THE PAST YEAR

We would like to begin with the SEG recognitions that were received by our committee members in 2024. Ali Tura received the SEG Life Membership Award, and Jean-Paul van Gestel was named North America Honorary Lecturer for the second half of 2024.

Committee members were again involved in organizing and chairing sessions for the Carbon Capture, Utilization, and Storage Conference (CCUS); Unconventional Resources Technology Conference (URTeC); and IMAGE. Marianne Rauch contributed to URTeC, and van Gestel contributed to CCUS. The committee hosted a technical luncheon at IMAGE '24. The invited speaker, van Gestel, presented "Time-lapse seismic on the Atlantis Field: How the last 10 years shape the next 10." Approximately 70 individuals attended the luncheon.

Also for IMAGE '24, the committee sponsored a postconvention workshop with the theme "Advancements and the road ahead in 4D seismic." Three of the seven invited speakers focused on 4D full-waveform inversion, reflecting the current most popular topic in the industry. Indeed, 4D full-waveform inversion has seen rapid progress in recent years, and solid field data examples were shared in all three presentations. North Sea examples were shared by

TGS, Gulf of Mexico examples were shared by SLB, and an Atlantis case study was shared by BP. The rest of the speakers presented other relevant 4D topics including signal-to-noise ratio and survey design (University of Texas at Austin), 4D interpretation (Shell), amplitude-variation-with-offset inversion (Colorado School of Mines), and time-shifts and geomechanics (Chevron). The workshop was well attended, starting with 50 to 60 participants and reaching approximately 100 participants during the second half. Two dedicated discussion sessions were included in the program, filled with questions and answers, comments, and good interaction between the audience and speakers. The committee acknowledges the contributions of the lead organizer, Xin Cheng from SLB, and co-organizers, Kanglin Wang and Erkan Ay from Shell.

During the committee's third-quarter meeting, immediately after IMAGE '24, membership guidelines were reviewed, and new members were accepted. The new chair, Samarjit Chakraborty, and vice chair, Shauna Oppert, were also selected.

An important milestone this year was the 4D Forum, organized by the committee and scheduled for 4–6 November 2024 in Galveston, Texas. This aimed to be a global forum focused on creating value, reducing cycle time, and optimizing production and injection in a digital world. The forum addressed the global and industry-wide challenge of reservoir monitoring for optimizing resource management. It brought together leaders, practitioners, and students from industry and academia involved in surveillance monitoring to showcase current and future technology, discuss value propositions, and review instructive case studies.

## DISTINGUISHED LECTURE

COMMITTEE CHAIR: BORIS GUREVICH

BOARD LIAISON: SERGIO CHÁVEZ-PÉREZ

STAFF LIAISONS: MELISSA PRESSON AND ANNABELLA BETANCOURT

### EXECUTIVE SUMMARY

The SEG Lectures program, including Distinguished Lecture, Honorary Lecture, Virtual Near-Surface Global Lecture, and Global Sustainability Lecture, continues to be one of the most effective outreach programs of SEG, as evidenced by the statistics in this report.

### HIGHLIGHTS FROM THE PAST YEAR

Due to ongoing financial challenges, all lectures were delivered virtually (twice), reaching 2750 total registrants with 1108 unique views. Seven extra virtual lectures are scheduled before the end of 2024, contributing to increased reach.

Because each lecture is targeted to a specific range of time zones, our regional-based lecturers are now reaching a more global audience. An office-hour option immediately following lectures is regularly offered, allowing lecturers to interact virtually with the audience in an informal way.

The Distinguished Lecture Committee organized a special session at IMAGE '24 to highlight the best of the program from the third and fourth quarters in 2023 and first and second quarters in 2024. The session featured three honorary lecturers: Tim Dean (2024), Umair Bin Waheed (2024), and Agatha Onuwaje (2023). The session was well attended.

In 2025, the committee plans to focus on sharing knowledge and feedback from the 4D Forum. Committee members will continue to be involved in contributing to CCUS, URTeC, and IMAGE and engaging with other professional societies such as the Society of Petroleum Engineers and American Association of Petroleum Geologists.

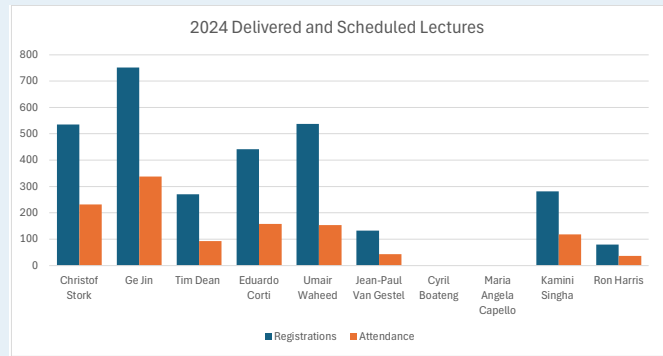


Figure 10. Delivered and scheduled lectures for 2024.

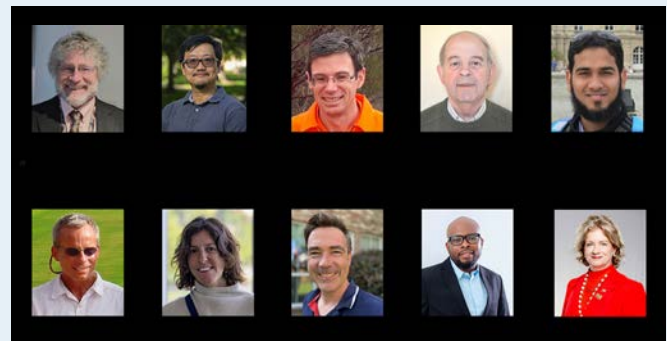


Figure 11. Subject-matter experts made up the slate of lecturers.

## DISTINGUISHED INSTRUCTOR SHORT COURSE

COMMITTEE CHAIR: SERGIO CHÁVEZ-PÉREZ

BOARD LIAISON: MAURICIO SACCHI

STAFF LIAISON: MELISSA PRESSON

### EXECUTIVE SUMMARY

The Distinguished Instructor Short Course (DISC) continues to see an upward trend in virtual and in-person attendance, with more than 550 learners. The DISC Committee will continue its efforts to attract new committee members and ensure that top-quality instructors with leading-edge topics are nominated.

### HIGHLIGHTS FROM THE PAST YEAR

Philip Ringrose presented “Storage of carbon dioxide in saline aquifers — Building confidence by forecasting and monitoring.” Ringrose continued his tour in 2024 with another 13 courses, with two

more scheduled before the end of 2024, totaling 17 courses and more than 565 attendees.

Mrinal Sen presented “Physics and data-driven seismic data analysis: A narrative of two approaches.” Sen successfully kicked off his 2024–2025 tour at IMAGE, with 32 registered attendees. The course was very successful and engaging. Sen will continue the tour into 2025, with scheduled stops in Asia Pacific, Europe, Middle East, North America, and South America.

See Table 2 for all course details. Due to the recent publication of his book, Joe Dellinger will be scheduled to give his previous DISC course in 2025.

Date	Location	Venue	Instructor	Registered Attendees
16 January	Houston, Texas	Chevron/Geophysical Society of Houston	Ringrose	38
18 January	Calgary, Canada	SubsurfaceAI Inc.	Ringrose	24
6 February	Perth, Australia	Woodside (private course)	Ringrose	20
8 February	Perth, Australia	Australian Society of Exploration Geophysicists (ASEG) /PESA	Ringrose	52
12 February	Adelaide, Australia	ASEG/PESA	Ringrose	23
19 March	Stavanger, Norway	Aker BP (private course)	Ringrose	20
9 and 10 April	London/Virtual	SEG-Geoscience Energy Society of Great Britain	Ringrose	22
30 May	Oslo, Norway	Equinor	Ringrose	20
14 June	Oslo, Norway	European Association of Geoscientists and Engineers Conference and Exhibition	Ringrose	12
27 June	Dharan, Saudi Arabia	Dharan GeoScience Society	Ringrose	60
14 August	Bandung, Indonesia	Institut Teknologi Bandung	Ringrose	32
21 and 22 August	Virtual	SEG	Ringrose	21
26 August	Houston, Texas	IMAGE '24	Sen	32
3 October	Virtual	EVOLVE	Ringrose	57
26 and 27 November	Equinor	Equinor	Ringrose	TBD
13 December	Tokyo, Japan/Virtual	SEG Japan	Ringrose	TBD

Table 2. Courses taught in 2024.

## GEOPHYSICS

COMMITTEE CHAIR: ALISON MALCOLM

BOARD LIAISON: KYLE SPIKES

STAFF LIAISON: ELIZABETH WARREN

### EXECUTIVE SUMMARY

GEOPHYSICS remains one of the leading journals in applied earth sciences, with submissions maintaining a steady pace and quality comparable to previous years. However, securing timely high-quality reviews poses a challenge, as authors face increasing pressure to publish extensively. Additionally, we continue to face severe competition from other journals, especially regarding page charges and open-access fees. Increased adoption of open-access mandates by government agencies and academic institutions add to these pressures.

### HIGHLIGHTS FROM THE PAST YEAR

Submissions remain steady at approximately 800 per year, and our editorial board is sufficiently staffed for this volume. Recent restructuring of editorial roles has improved sustainability, allowing more editorial participation at senior levels.

In 2024 (from January to August), we received 602 submissions, a 23% increase from the 488 received during the same period in 2023 (Figure 12). We continue to publish approximately 70 technical papers per issue, with a more selective acceptance rate of 47% (Figure 13). Most submissions continue to come from China, with the United States following at a distant second. Brazil, Canada, and Europe round out the top submission sources (Table 3).

In terms of citations and impact, GEOPHYSICS remains stable, with minor fluctuations in key metrics. The

journal’s impact factor dropped slightly to 3.0 in 2023, though the h5-index rose to a record 63 (Table 4).

The journal featured two special sections in 2024 on the [latest advancements in machine learning for geophysics](#) (23 papers) and [geophysics for critical minerals](#) (seven papers). Both were featured in the January-February issue.

On 1 August 2024, Antoine Guitton began his term as editor-in-chief, while Joakim Blanch was promoted

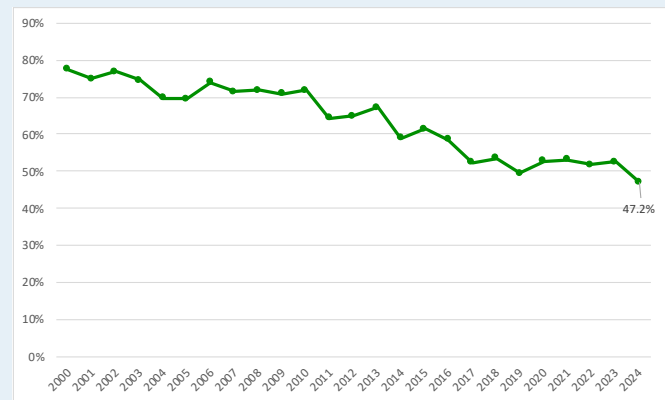


Figure 13. GEOPHYSICS acceptance rate history as of 31 August 2024.

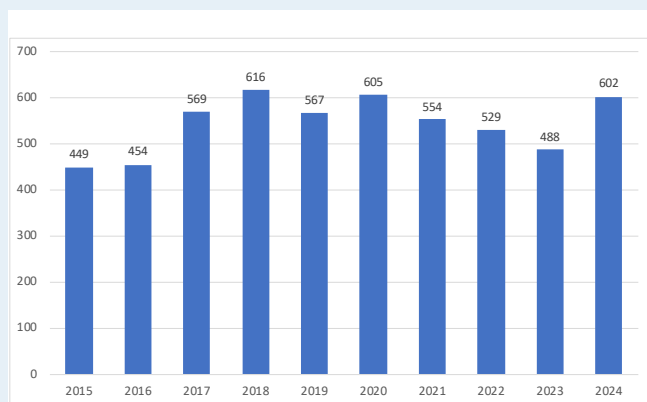


Figure 12. GEOPHYSICS submissions by year as of 31 August 2024.

Country/region	Number of manuscripts	Percent of manuscripts
China	428	71.1%
United States	44	7.3%
Rest of world	25	4.2%
Canada	21	3.5%
Brazil	15	2.5%
Germany	8	1.3%
Saudi Arabia	8	1.3%
Italy	7	1.2%
Netherlands	7	1.2%
India	6	1.0%
Iran	6	1.0%
South Korea	6	1.0%
United Kingdom	6	1.0%
Denmark	5	0.8%
France	5	0.8%
Japan	5	0.8%
<b>Total</b>	<b>602</b>	

Table 3. Original submissions by country of submitting author as of 31 August 2024.

Indicator (source)	2023 score
h5-index (Google Scholar)	63
h5-median (Google Scholar)	81
CiteScore (Scopus)	6.9
SciMago Journal Rank (Scopus)	1.438
Journal Citation Indicator (Web of Science)	0.87
Journal Impact Factor (Web of Science)	3.0

**Table 4.** Journal metrics (also available [online](#)).

to senior assistant editor and is poised to take over as editor-in-chief in 2025. Other editorial changes included Danilo Velis' promotion to assistant editor and Kris Innanen assuming the Letters ASE portfolio.

At IMAGE '24, Alan Richardson was honored as GEOPHYSICS Reviewer of the Year. The paper "[Imaging near-surface S-wave velocity and attenuation models by full-waveform inversion with distributed acoustic sensing-recorded surface waves](#)" by Pan et al. won Best Paper in GEOPHYSICS.

We changed procedure slightly this year for the Best Paper Award, considering both papers recommended by editors and those with notable online usage. The competition was done in two rounds, with all assistant editors (except those in conflict with papers under consideration) jointly selecting five papers based on abstracts and figures and a second round using the full content of the paper.

A disciplinary case from 2022, mentioned in last year's report, was resolved, and a correction was published at the request of the institution involved.

While the two special sections were well received, acquiring proposals and special editors for future

sections remains challenging. We have two special sections planned for 2025 and continue to seek more.

Our software publishing standards need to be updated, and we are in the process of implementing new regulations. This effort was impacted by digital infrastructure changes at SEG, which relocated archival software code packages to the SEG Wiki in late 2023. We are currently awaiting redirection of these pages and stand ready to issue corrections if SEG cannot facilitate.

Finding enough qualified reviewers continues to be difficult, exacerbated by the pressure on academics to publish prolifically, sometimes resulting in low-quality submissions. To address this, we are focusing on training our editors to screen submissions more effectively and encouraging authors to improve their papers before submitting for review.

We are also addressing "salami publishing," where authors split their research into multiple publications. While no automated detection tools exist, we are working with editors to identify patterns in submissions.

The rise of artificial-intelligence (AI) tools presents both opportunities and challenges. While AI can enhance writing quality, it also raises concerns about plagiarism. We are monitoring this closely, adhering to SEG's publishing policies requiring authors to disclose AI use in their submissions and publications.

We are committed to diversity, equity, and inclusion in our editorial appointments, focusing on recruiting younger professionals while also balancing workloads to avoid burnout. We aim to retain experienced researchers, who bring broader networks and reduce turnover, and are fostering closer collaboration between assistant and associate editors to balance workloads and secure reviewers more effectively.

## GRAVITY AND MAGNETICS

COMMITTEE CHAIR: ALAN MORGAN  
BOARD LIAISON: MAURICIO SACCI  
STAFF LIAISON: STEVE BROWN

### EXECUTIVE SUMMARY

The Gravity and Magnetism Committee held multiple events in 2024 including quarterly meetings, a luncheon, technical sessions, and a postconvention workshop.

### HIGHLIGHTS FROM THE PAST YEAR

The committee organized several events for IMAGE '24. Oral sessions were on machine learning, interpretation, and inversion. Poster sessions focused on inversion and applications in processing and interpretation. Additionally, special sessions on geologic hydrogen featured gravity and magnetism exploration methods. Each session was well attended.

A postconvention workshop was held in honor of Manik Talwani and chaired by Ed Biegert and Dan DiFrancesco. The workshop featured talks about the foundations laid by Talwani, previous experiences with the late professor, and new instruments and upcoming technologies. The chair is preparing a submission to the Citizens' Stamp Advisory Committee to honor Talwani with a postage stamp. The earliest it can be considered is three years following his passing (March 2026).

The Gravity and Magnetism Luncheon topic was "Potential fields for polar problems" by Kristi Tinto of Lamont-Doherty Earth Observatory. The luncheon, although interrupted by a fire alarm, captivated the audience with the speaker's experience utilizing gravity and magnetic data to map subglacial terrain in Antarctica and Greenland.

A vice chair, Luan Nguyen, was elected this year and will replace the current chair after the 2025 term comes to an end.

The committee struggles with maintaining an up-to-date mailing list, and solutions are under discussion.

## GEOSCIENTISTS WITHOUT BORDERS®

COMMITTEE CHAIR: CENGIZ ESMERSOY  
BOARD LIAISON: CATHERINE TRUFFERT  
STAFF LIAISON: PALLAVI BHARADWAJ

### EXECUTIVE SUMMARY

In 2024, three new global projects (Ghana, Uganda, and Vietnam) were funded for a total of US\$90,000. One more project in the Houston area is being selected for an additional \$50,000. In the second half of 2023, two global projects were funded for a total of \$72,000, in addition to the three projects funded in the first half for \$150,000. Though pandemic, extreme weather events, customs and excise duties, and in-country election-related project delays continued, we expect all projects will be completed successfully.

Funding levels decreased significantly from last year, and future funding levels are uncertain. Baker Hughes and the American Association of Petroleum Geologists Foundation renewed their support for the program in 2024. However, that does not confirm their committed support for 2025.

### HIGHLIGHTS FROM THE PAST YEAR

In the second half of 2023, 32 global proposals were reviewed and two were funded for \$72,000:

- "Groundwater exploration for refugees' water supply in semi-arid rural areas of Ferke, Ivory Coast" by Ouedraogo Moussa (University of Man)
- "Aquinas" by Anne Meylani Magdalena Sirait (University of Indonesia)

In the first half of 2024, 44 proposals were reviewed and three global projects were funded for a total of \$90,000:

- "Exploring and harnessing groundwater for water supply, food, and incomes" by Yussif Abdul-Rahaman (Pumping is Life Ghana)
- "Landslide investigation for the benefit of poor minority ethnic people in northern Vietnam" by Phan Huy Giao (PetroVietnam University)
- "2025 geophysical water exploration, well completion, and well repair in northern Uganda" by Paul Bauman (IsraAID)

In addition, we received SEG's special funding again this year for a project that will be part of an IMAGE '25 field trip in the Houston area. Three initial applications are being considered, and one will be funded for



Figure 14. Electrical resistivity tomography (ERT) survey results from Khumjung. Courtesy of Kirsten Nicholson.

\$50,000. There are 10 ongoing projects, five of which are expected to end by December 2024. Six projects were completed earlier this year. Next are two examples.

**Nepal.** “Understanding high mountain aquifers to source drinking water in the Sagarmatha National Park” was conducted by Kirsten Nicholson from Ball State University. Goals of the project were to (1) provide Phortse and Khumjung-Kunde with sustainable long-term access to potable water and (2) help train U.S. and Nepali students in geologic and geophysical field methods, social sciences, and data analyses. See Figures 14 and 15.

**Peru.** “Hydrogeophysics for community monitoring of groundwater in degraded dry forest quebradas” was conducted by EcoSwell. Goals of the project were to (1) devise a methodology for modeling quebradas hydrogeophysics, (2) develop a community hydrogeophysics training program, and (3) build local capacity for replication in similar quebradas near the Talara Province in the Piura region.

The field campaign demonstrated the resistivity and seismic systems’ potential for shallow groundwater exploration by marginalized communities in degraded environments of northern coastal Peru. Simple geophysical instruments and processing tools for local community use were donated, empowering them to conduct cost-effective groundwater surveys. With this knowledge and low-cost equipment, they can now save money that would otherwise be needed to pay consultants for costly surveys and



Figure 15. Students lay ERT lines in Phortse. Courtesy of Kirsten Nicholson.

be better informed through their own actions before drilling investments. See Figures 16 and 17.

**Other activities.** GWB's Houston project leader, Robert Stewart (University of Houston), organized a field trip for 18 participants to learn about "Dignity in depth — African American cemeteries restoration project." The participants gained hands-on experience in using ground-penetrating radar, 3D imaging, and drone survey techniques at two of the oldest cemeteries in the downtown Houston area. The field trip was offered 25 August 2024 before IMAGE '24 commenced.

We organized an alternate technical presentation, as a special session was not approved for IMAGE '24. Four presentations on Guatemala, Peru, Uganda, and Zambia projects were made. We also held our annual GWB Reception at IMAGE '24, which was well attended. Three student participants from Houston and Indonesia (tsunami and water) projects presented.

This year, follow-up and evaluation forms were updated to improve and streamline the review process for proposals.



**Figure 16.** Community members take measurements. Courtesy of Diego Almendrades.



**Figure 17.** The project team gathers during a field expedition in Lobitos, Peru. Courtesy of Diego Almendrades.

# HEALTH, SAFETY, SECURITY, AND ENVIRONMENT

COMMITTEE CHAIR: SHARON TEEBENNY

BOARD LIAISON: OLGA NEDORUB

STAFF LIAISONS: JOHN MEADE AND ANNABELLA BETANCOURT

## EXECUTIVE SUMMARY

In 2024, one goal of the Health, Safety, Security, and Environment (HSSE) Committee was to continue the review and refresh of all existing HSSE content on the SEG Wiki. Another goal was to design and create a toolkit of HSSE resources that are applicable to all SEG-related activities. In addition, the committee continued collaboration with the Field Camps Committee to strengthen safety during field camps. All field-camp applications were reviewed and lessons learned were created to enhance the process for future applicants.

## HIGHLIGHTS FROM THE PAST YEAR

The HSSE Committee had a very productive year. Members of the committee reviewed current HSSE content on the SEG Wiki. They brainstormed new directions to support the HSSE mandate and worked on enhancing and updating the content.

The committee continued to include new categories in the [HSSE toolkit](#) to support SEG members during activities, events, and meetings. Documents were updated to enable strong HSSE practices for all SEG

activities. Members of the committee provided support to the Field Camps Committee by reviewing all field-camp applications. From this exercise, we created lessons learned to enhance guidelines for future applications. Our committee reviewed and supplied feedback on the HSSE plans of 15 field-camp applications. Eight applications were selected for funding by the Field Camps Committee, and the HSSE Committee worked with seven applicants to further develop their safety plans. One application in particular was diverted from executing during monsoon season. Our members' input was crucial to prevent unnecessary incidents. The HSSE Committee continues to process the safety statistics from field camps. No major incidents occurred this year:

- Two serious injuries occurred due to pre-existing conditions. There were five first-aid-only incidents.
- There were 422% more participants than in 2022 and an 87% decrease in incidents.
- From 2021 to 2023, five of nine camps reported no occurrence of incidents/injury.

A field camp leadership course was held, and positive feedback was received from many.

There were 12 student participants from eight countries. Four were non-field-camp students. There

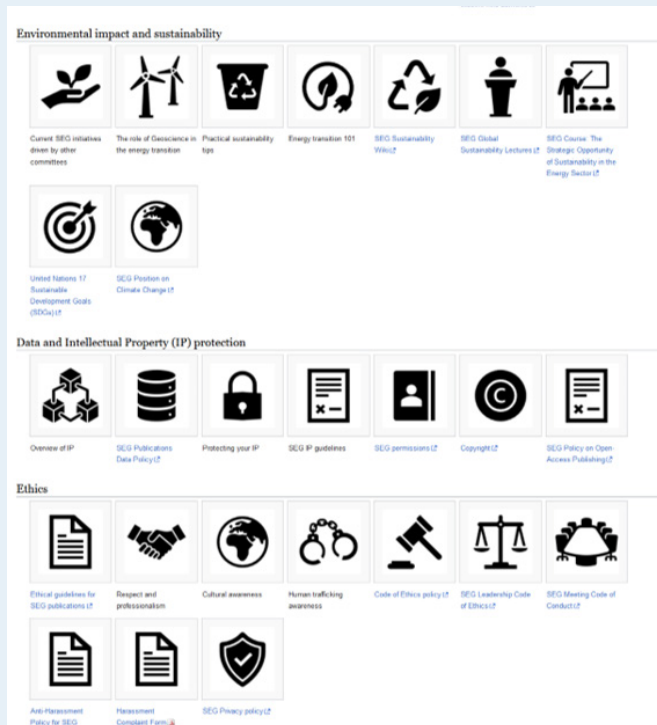


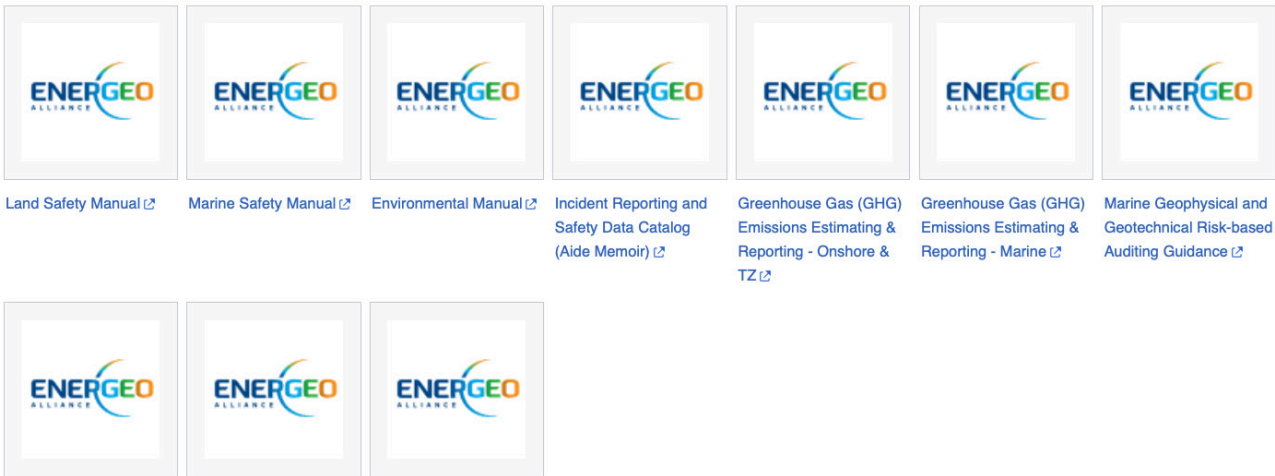
Figure 18. SEG HSSE toolkit part 1.



Figure 19. SEG HSSE toolkit part 2.

were participants from small-to-medium oil-and-gas companies who plan to run field camps with the American Association of Petroleum Geologists.

### Industry Guidelines



- Land Safety Manual [↗](#)
- Marine Safety Manual [↗](#)
- Environmental Manual [↗](#)
- Incident Reporting and Safety Data Catalog (Aide Memoir) [↗](#)
- Greenhouse Gas (GHG) Emissions Estimating & Reporting - Onshore & TZ [↗](#)
- Greenhouse Gas (GHG) Emissions Estimating & Reporting - Marine [↗](#)
- Marine Geophysical and Geotechnical Risk-based Auditing Guidance [↗](#)
- Support, Escort and Local Vessel Guideline [↗](#)
- Support, Escort & Local Vessel Inspection Checklist Cat. A-B-C [↗](#)
- Guidance for Integrated Survival System (ISS) - Marine Geophysical Operations [↗](#)

Figure 20. SEG HSSE guidelines.

*Note: Previous field camps encountered the following safety issues.*

Injury	Injury Details
No Reported Medical Conditions	Medical Incidents
Wounds	Cuts, burns, bruises
Strain/Sprain	Stress-induced body pain, fall
Bone & Joint	
Insects	Mosquito bite, tick bite
Environmental	Heat, sunburn, allergies
Medical	Gastrointestinal disorders, cholecystitis, flu, sore throat, headache, COVID, malaria

*Last year's field camps encountered the following safety issues.*

Occurrence	Total Injuries	Injuries (%)
Wounds	9	16.98%
Strain/Sprain	0	0%
Bone & Joint	0	0%
Insects	11	20.75%
Environmental	8	15.09%
Medical	25	47.17%

Figure 21. Field Camp Summary Injury Report from 2023.

## HONORS AND AWARDS

COMMITTEE CHAIR: ROBERT STEWART

BOARD LIAISON: KEN TUBMAN

STAFF LIAISON: MANDI DUCKWORTH

### EXECUTIVE SUMMARY

Nominations were solicited from the membership at large following IMAGE '23, and 19 individuals were selected to receive established awards from the Society. Selections for Best Paper awards were provided by the editor of *GEOPHYSICS*, the editorial board of *Interpretation*, and the editorial board of *The Leading Edge*.

### HIGHLIGHTS FROM THE PAST YEAR

After extensive research, awards were recommended by the committee and approved by the Board of Directors. The awards were conferred at the Honors and Awards Ceremony at IMAGE '24. The list of recipients is included here, and citations for recipients were published in *The Leading Edge*.

This year, the committee requested Board approval to increase the number of J. Clarence Karcher Award recipients from a maximum of three to five individuals per year. The committee also revised the awards nomination process with an online submission form. Implementation of the form is intended to streamline the submission and review process and better capture the requirements of the nominee necessary for proper evaluation by the committee. The form is available [online](#).

#### MAURICE EWING MEDAL

Mark D. Zoback

#### VIRGIL KAUFFMAN GOLD MEDAL

Young Seo Kim

#### REGINALD FESSENDEN AWARD

Riaz Alai, David L. Alumbaugh, Yalin Li, Nick Moldoveanu, and Partha Routh

#### J. CLARENCE KARCHER AWARD

Ariel Lellouch, Eileen R. Martin, Chao Song, Jidong Zhang, and Lele Zhang

#### LIFE MEMBERSHIP

Nancy J. House and Ali Tura

#### CECIL GREEN ENTERPRISE AWARD

Peter M. Duncan/MicroSeismic Inc.

#### SPECIAL COMMENDATION

Huyen Bui and Sandeep Chandola

#### OUTSTANDING EDUCATOR

Umair Bin Waheed and Camelia Cristina Knapp

#### BEST PAPER IN GEOPHYSICS IN 2023

"Imaging near-surface S-wave velocity and attenuation models by full-waveform inversion with distributed acoustic sensing-recorded surface waves" by Wenyong Pan, Luping Qu, Kristopher A. Innanen, Jan Dettmer, Marie Macquet, Donald Lawton, and Yanfei Wang

#### HONORABLE MENTION (GEOPHYSICS)

"Distributed acoustic sensing of ocean-bottom seismo-acoustics and distant storms: A case study from Svalbard, Norway" by Kittinat Taweessintananon, Martin Landrø, John Robert Potter, Ståle Emil Johansen, Robin André Rørstadbotnen, Léa Bouffaut, Hannah Joy Kriesell, Jan Kristoffer Brenne, Aksel Haukanes, Olaf Schjelderup, and Frode Storvik

"Geophysically guided well siting at the Aluto-Langano geothermal reservoir" by Friedemann Samrock, Alexander Grayver, Marie Luise Texas Dambly, Madeleine R. Müller, and Martin O. Saar

"Moment tensor inversion of perforation shots using distributed acoustic sensing" by Milad Bader, Robert G. Clapp, Kurt T. Nihei, and Biondo Biondi

#### BEST PAPER IN THE LEADING EDGE IN 2023

"Seeing through the CO<sub>2</sub> plume: Joint inversion-segmentation of the Sleipner 4D seismic data set" by Juan Romero, Nick Luiken, and Matteo Ravasi

#### HONORABLE MENTION (THE LEADING EDGE)

"From FWI to ultra-high-resolution imaging" by Isabel Espin, Nicolas Salaun, Hao Jiang, and Mathieu Reinier

"Monitoring casing corrosion of legacy wells using CSEM: Implications for large-scale energy and CO<sub>2</sub> storage projects in shut-down hydrocarbon fields" by Simone Zonetti, Bastien Dupuy, Benjamin Emmel, and Anouar Romdhane

#### BEST PAPER IN INTERPRETATION IN 2023

"A deep learning framework for seismic facies classification" by Harpreet Kaur, Nam Pham, Sergey Fomel, Zhicheng Geng, Luke Decker, Ben Gremillion, Michael Jarvis, Ray Abma, and Shuang Gao

**HONORABLE MENTION (INTERPRETATION)**

“Imaging distributed acoustic sensing-to-geophone conversion data: A field application to CO<sub>2</sub> sequestration data” by Yong Ma, Lei Fu, and Weichang Li

“Visualizing subtle structural and stratigraphic features on 3D seismic-reflection data: A case study from offshore Libya” by Nabil Khalifa and Stefan Back

“Stochastic velocity modeling for assessment of imaging uncertainty during seismic migration: Application to salt bodies” by Nicolas Clausolles, Pauline Collon, Modeste Irakarama, and Guillaume Caumon

“Anomalous elastic properties of mudrocks bounding reservoirs with high concentrations of naturally occurring CO<sub>2</sub>” by Mark Sams and Thivyaadarshini Jayasangar

- Six luncheons
- Nine short courses
- Three field trips
- Four pavilions (digitalization, carbon management, near surface, and global energy opportunities)
- Geothermal hub

**Abstract submission process.** Based on feedback from previous IMAGE events, there was a recognition of the importance of reworking the abstract submission process. Discussions with stakeholders across SEG and the American Association of Petroleum Geologists (AAPG) generated constructive feedback that was used to establish revised abstract guidelines, as well as submission and evaluation processes that we highlight in Table 5.

**Poster sessions.** Another area for experimentation was poster sessions. We are limited by space for the number of oral presentations that are possible. Poster sessions have the potential to allow more and deeper dialogue with presenters. There are other organizations that have great success with poster sessions, and we want to move in that direction. We added more poster sessions and located them on the third floor, closer to technical presentations. We also encouraged authors to stay for longer time slots to allow more dialogue. These efforts enabled approximately 30% more posters. We are sure our poster sessions will continue to improve

**IMAGE OVERSIGHT**

COMMITTEE CHAIR: KEN TUBMAN

BOARD LIAISON: JIM WHITE

STAFF LIAISONS: TOM AGNEW AND ALAN WEGENER

AAPG MEMBERS: CHARLES STERNBACH AND BOB FRYKLUND

SEG MEMBERS: JOSEPH REILLY AND JEFFREY SHRAGGE

**EXECUTIVE SUMMARY**

The IMAGE Oversight Committee committed to trying different approaches this year. Those ideas contributed to another successful IMAGE, and we hope future committee members will continue to push boundaries for further improvements. This year’s new efforts are listed in this report.

**HIGHLIGHTS FROM THE PAST YEAR**

Highlights and numbers for this year’s meeting include the following:

- 7825 attendees from 83 countries
- 85,120 net square feet of exhibit space filled by 264 exhibitors
- 1221 abstracts accepted out of 1647 submitted
- 159 oral sessions
- 155 poster sessions
- 17 postconvention workshops
- One technical panel

2024 Abstract process
A single submission was conducted, where authors had a choice of submitting a short abstract (one-page structure) or expanded abstract (two-to-four-page structure).
All abstracts were reviewed and scored based on a score from 1 to 10.
Reviewers were separated, so short-abstract reviewers reviewed only short abstracts and expanded-abstract reviewers reviewed only expanded abstracts.
Talks/selected sessions were created based on review scores.
All abstracts selected for presentation were made available as submitted prior to the meeting.
Expanded abstracts were assigned a DOI number and published via the SEG Library, Datapages, OnePetro, etc. for access via subscription or pay per view.

**Table 5.** The 2024 abstract process.

as we experiment and adjust. They are a critical part of the technical program and offer a lot of potential.

**Presentation viewing.** The prerecording and release of select presentations to all members and registrants was added as a new free benefit. The live portion of IMAGE '24 may be over, but you can still see a selection of great presentations, science, and insights with SEG On Demand access through 10 May 2025. Watch and replay talks anywhere, anytime, and from any device.

Sessions were chosen by the Program Committee for recording, and they only include presentations from authors who have given permission to be recorded. Several options were considered for this trial program. The chosen option allowed our global membership the greatest flexibility to view presentations at their leisure. It also allowed IMAGE attendees to catch presentations they missed and replay those they would like to study further. All of this was implemented without detracting from attendance at IMAGE.

As part of the design, IMAGE did not require copyright release of the presentations, only show rights for a limited period. This allowed presenters to release the entire presentation without being restricted by material that they did not wish to release for copyright.

Everyone is encouraged to take advantage of this program. Continuation is dependent on demonstration that the offering is being actively utilized. It will also

be used as a reference for soliciting from the authors full manuscripts of their work for publication.

**Increased focus on geographic sessions.** This directive came in response to requests from many AAPG members. It was enacted by a proactive session chair recruiting effort among more than 60 outstanding individuals from all AAPG Sections and Regions who are experienced in regional sessions.

**Panels on executive leadership and business.** We focused on fewer but more impactful panels, with the topics of business and executive leadership for the Opening Ceremony and All Convention Luncheon. Social panels went to the Gathering Place, allowing more room for technical content in the main conference rooms.

**Increased integration.** This directive was to focus on integrated case studies of geology and geophysics. This was accomplished by showcasing integrated content and moving away from purely “colocated” geology and geophysics.

**Planning for 2025.** Key topics for discussion this year and next are location and timing. Holding the meeting in Houston yields increased attendance and allows our exhibitors to reduce costs (versus rotating cities). We all would prefer dates later in the year. This is being discussed with the convention-center officials, but our options are limited, largely due to the high demand for the facilities and our relatively small use of hotel rooms.

## INTERPRETATION EDITORIAL BOARD

COMMITTEE CHAIR: VSEVOLOD EGOROV  
 BOARD LIAISON: KYLE SPIKES  
 STAFF LIAISON: ELIZABETH WARREN

### EXECUTIVE SUMMARY

Published quarterly, *Interpretation* supports innovation in resource exploration and environmental stewardship. Copublished by the American Association of Petroleum Geologists and SEG, the journal remains a platform for high-quality geoscience publications, thanks to the efforts of authors, editors, and reviewers.

In the past year, more than 250 contributors engaged with the journal, with submission rates and content diversity on the rise. From 2023 to 2024, *Interpretation* published six special sections, with six more forthcoming, and achieved its geographic diversity goals. The geographic representation of the authors is another goal that the journal is targeting every year with noticeable results.

### HIGHLIGHTS FROM THE PAST YEAR

**Editorial board meetings.** Two editorial board meetings were held within the period to discuss the journal’s achievements, activities, and initiatives.

**Editorial board changes.** Four new deputy editors joined the editorial board to provide additional expertise and alleviate workload, while one associate editor stepped down. In 2024, succession planning led to the cross-organizational appointment of Bradley Wallet as incoming editor-in-chief and Sumit Verma as deputy editor-in-chief for 2025–2027.

**Annual awards.** Editors assessed 25 nominated papers, and the 2023 Best Paper Award went to Harpreet Kaur, Nam Pham, Sergey Fomel, Zhicheng Geng, Luke Decker, Ben Gremillion, Michael Jervis, Ray Abma, and Shuang Gao for [“A deep learning framework for seismic facies classification.”](#) Four honorable mentions were also awarded.

**Reviewer database.** To address the ongoing challenge of finding reviewers, the editorial board initiated building an internal reviewer database to be accessed by the editors. As of August 2024, 481 unique journal reviewers have opted in to the Web of Science Reviewer Recognition system.

**Healthy metrics.** This year, significant improvement was seen in Google Scholar metrics. These

Indicator (source)	2023 score
h5-index (Google Scholar)	26
h5-median (Google Scholar)	52
CiteScore (Scopus)	2.5
SciMago Journal Rank (Scopus)	0.391
Journal Citation Indicator (Web of Science)	0.32
Journal Impact Factor (Web of Science)	1.1

Table 6. Journal metrics [\(also available online\)](#).

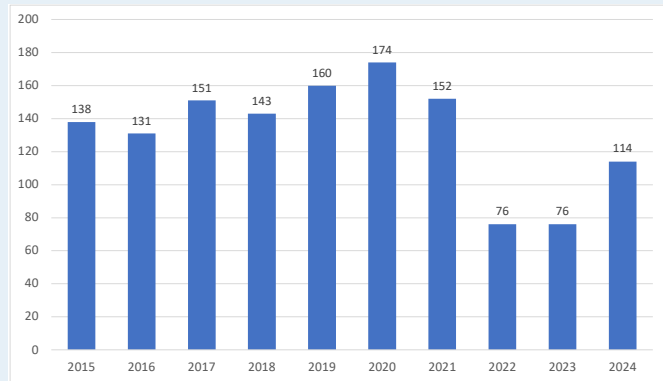


Figure 22. *Interpretation* submissions by year as of 31 August.

measure five years of citation information, so they are most appropriate for geoscience publications, which take a long time to reach citation maturity. The h5-index increased 4% (to 26) and h5-median increased 21% (to 52) (Table 6).

**Increased readership.** From January to August 2024, the journal’s online publications were accessed more than 153,600 times, which is a 15% increase compared to the same period in 2023.

**Rising submission rates.** Submissions have increased significantly, reversing a downward trend seen in previous years. In 2023, the journal received 125 original submissions. From 1 January to 31 August 2024, *Interpretation* received 114 manuscripts. This is a 42% increase from the 76 submissions during the same period last year (Figure 22).

**Quality peer review.** The peer-review process remains rigorous, ensuring high publication standards. Editors and reviewers continue to provide thorough assessments and constructive feedback, helping authors enhance their manuscripts. The

current rejection rate stands at 32% (Figure 23), reflecting a commitment to maintaining quality while supporting authors' development.

**Global representation.** Author-origin geography diversification is one of the journal's targets. This year, the journal was on track. While dominated by authors from China (39%) and the United States (28%), this year's submissions included contributions from 20 other countries, enhancing geographic diversity (Table 7).

**Special sections.** The journal published six special sections from August 2023 to August 2024, with another in press for the November 2024 issue (Table 8). In that same time period, an additional six calls for papers were active, drawing submissions on a variety of topics (Table 9). Citation data for

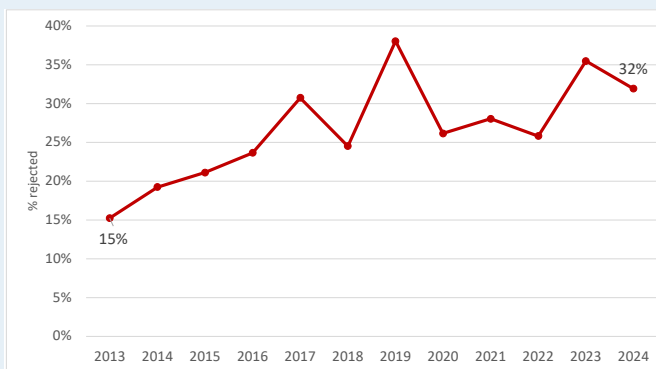


Figure 23. Interpretation rejection rates by year as of 31 August.

Country/region	Number of new manuscripts	Percent of manuscripts
China	45	39.5%
United States	32	28.1%
Brazil	3	2.6%
Colombia	3	2.6%
Nigeria	3	2.6%
Saudi Arabia	3	2.6%
United Kingdom	3	2.6%
Egypt	2	1.8%
India	2	1.8%
Iran	2	1.8%
Japan	2	1.8%
Kazakhstan	2	1.8%
Norway	2	1.8%
South Korea	2	1.8%
Algeria	1	0.9%
Argentina	1	0.9%
Australia	1	0.9%
Canada	1	0.9%
Malaysia	1	0.9%
Mexico	1	0.9%
Türkiye	1	0.9%
Taiwan	1	0.9%
<b>Total</b>	<b>114</b>	

Table 7. Original submissions by country of submitting author as of 31 August 2024

Upcoming special-section title	Editors	Target issue date
Energy diversification: Natural resources beyond fossil fuels	Vsevolod Egorov, William Abriel, Sunday Amoyedo, Philip Ball, Kirsten Bannister, Dallas Dunlap, Sougata Halder, Nicole Hart-Wagoner, Rachelle Kerns, Shane Smith, Russel Roundtree, Pablo Gristo Savornin, and Jennifer Turner	February 2025
Understanding the subsurface helium system to advance helium exploration and development	Christopher Smith, Sean Brennan, Jacinda Brown, Jake Cammack, Vsevolod Egorov, Duncan Mackenzie, Tim Rynott, David Seneshen, Steven Tedesco, and Melinda Yurkowski	August 2025
Geologic and geophysical interpretation papers from IMAGE '23 and IMAGE '24	Bo Zhang, Haibin Di, Tao Zhao, Sumit Verma, and Huyen Bui	August 2025
Humanosphere and near-surface geophysics	Huyen Bui, Ehsan Jamali Hondori, Toshinori Kimura, Hitoshi Mikada, Kyosuke Okamoto, and Veronica Pazzi	August 2025
Advancements in geomechanics for sustainable energy solutions	David Haddad, Clairet Guerra, Pijush Paul, Reza Safari, Seth Busetti, and Zijun Feng	February 2026

Table 8. Upcoming special sections in Interpretation open from August 2023 to August 2024.

all special sections were examined to identify highly impactful topics that may be revisited.

**New initiatives.** The journal introduced a new standing section titled “[From outcrop to subsurface](#)” and revitalized interest in “Perspectives” via an [editorial in February 2024](#). Another [editorial in May 2024](#) highlighted the value of developing conference presentations into journal papers. It was accompanied by [author guidelines](#) on expansion.

Published special-section title	Editors	Issue date
<a href="#">The role of geochemical workflows in understanding resource plays</a>	Craig Barrie, Catherine Donohue, Humberto Carvajal, Shawn Wright, Alan Yu, Caroline Burke, Olivia Woodruff, and Eric Michael	November 2023
<a href="#">Borehole image data applications in reservoir characterization: Case studies and updates on new developments</a>	Bingjian Li, Vsevolod Egorov, Ricardo Perona, David Haddad, Katy Sementelli, Chicheng Xu, and Chrystiano Mardi	May 2024
<a href="#">Geographic information systems in geoscience data interpretation and analytics</a>	Vsevolod Egorov, Alan Foun, John McLeod, Jim Bock, Murray Christie, Arif Masrur, Shuhab Khan, Silke Bude, Pedro Barreto, and Seiichi Nagihara	May 2024
<a href="#">South China Sea deep structures and tectonics</a>	Ruwei Zhang, Baojin Zhang, Hongtao Zhu, Jean-Claude Sibuet, Anne Briaies, Jonny Wu, Susilohadi Susilohadi, Hongliu Zeng, Jianxiong Chen, and Guangfa Zhong	May 2024
<a href="#">Induced seismicity</a>	Sumit Verma, Shuvajit Bhattacharya, Kayla Kroll, Swetal M. Patel, and Bradley Walle	August 2024
<a href="#">Recent advances in reservoir characterization</a>	Runhai Feng, Dongfang Qu, Satinder Chopra, Sixue Wu, Andrey Klimushin, Klaus Mosegaard, ChingWen Chen, and Kenneth Bredesen	August 2024
<a href="#">Mobile shales</a>	Juan I. Soto, Dallas B. Dunlap, Michael R. Hudec, Chris K. Morley, Mark R. P. Tingay, and Lesli J. Wood	November 2024

**Table 9.** Published special sections in *Interpretation* from August 2023 to August 2024.

## JUSTICE, EQUITY, DIVERSITY, AND INCLUSION

COMMITTEE CHAIR: LILLIAN FLAKES

BOARD LIAISON: LILLIAN FLAKES

STAFF LIAISON: JENNIFER COBB

### EXECUTIVE SUMMARY

The Justice, Equity, Diversity, and Inclusion (JEDI) Committee is dedicated to promoting JEDI principles within the geophysical community. We are on a mission to create an inclusive environment where all voices are heard, valued, and empowered to contribute to the future of geophysics.

### HIGHLIGHTS FROM THE PAST YEAR

This year, the JEDI Committee focused on reaching out to other SEG committees in preparation for the launch of the JEDI Ambassadors program. The program, led by Ramesh “Neelsh” Neelamani, involves training members of selected committees and groups to act as ambassadors in support of JEDI principles. Training for the program took place in October 2024 for the following committees: Distinguished Lecture, Membership, Mining and Mineral Exploration, Research, and Women’s Network. Also included were the Distinguished Instructor Short Course Subcommittee, Foundation Board of Directors, Near-Surface Geophysics Technical Section, and *The Leading Edge* Editorial Board.

Also this year, Eileen Martin (vice chair of the committee) participated in a [Seismic Soundoff](#) podcast episode. She shared actionable advice and resources to help listeners make a positive impact in their professional environment.

The committee continued its “Geoscientists Around the Globe” department in *The Leading Edge*. Additionally, Lillian Flakes (committee chair and Board liaison) represented SEG in intersociety meetings conducted by the American Geosciences Institute.

Flakes and Martin met with the Women’s Network Committee (WNC) to explore the idea of the WNC moving under JEDI as a subcommittee. After discussions, the current recommendation is to keep the committees separate and determine synergies and areas where the committees could work together. Future discussions are to be scheduled.

Finally, one of the committee members, Cucha Lopez, served as cochair of diversity, equity, and inclusion activities at IMAGE ’24.

## MEETINGS REVIEW AND PLANNING

COMMITTEE CHAIR: ALEX MARTINEZ

BOARD LIAISON: MAURICIO SACCHI

STAFF LIAISON: DEBBIE MITCHELL

### EXECUTIVE SUMMARY

This year, the Meetings Review and Planning Committee reviewed 44 event proposals for operated, partnered, and promoted events. This is generally in line with historical annual review numbers. The committee met with SEG events staff early in the year to discuss the approval process, share learnings across regions, and gain insights into regional needs. Committee membership was stable, and members were actively engaged.

### HIGHLIGHTS FROM THE PAST YEAR

Committee members reviewed 33 event proposals from January to October 2024. This number is generally consistent with prior years. The proposals were clearly aligned with SEG community needs, and only a few required clarifications for final committee endorsement. There is a continuing shift from virtual to more in-person events compared to the last few years, although virtual remains an important delivery mechanism. Regionally, the Middle East, Asia-Pacific, and North America have the majority of events. Europe, South America, and Africa have comparatively few events.

To help strengthen the strategic component of the committee’s mission and enable being proactive rather than reactive (i.e., only reviewing proposals), the committee met with SEG events staff early in the year. This was done to gain better understanding of the proposal-development process, regional needs, and lessons learned. This holistic look also allowed the committee to identify topics of interest for future event proposals that were provided to SEG staff. This meeting was deemed useful and will be repeated once or twice a year.

The committee remains responsible for reviewing and endorsing events from a technical-merit basis. Committee membership remained stable in 2024, and the members were actively engaged. Going into 2025, the committee will be looking at a membership refresh to aid long-term continuity and succession planning.

## MEMBERSHIP

COMMITTEE COCHAIRS: LAURA BORNATICI AND AARON GIRARD

BOARD LIAISON: ANA CURCIO

STAFF LIAISON: TANIA STEPHENS

### EXECUTIVE SUMMARY

This year, the Membership Committee discussed and explored innovative approaches to attract new members, with a particular focus on engaging younger demographics, while continuing to serve our established members. As of October 2024, the total membership count is more than 12,000 members. This reflects a growth of more than 27% in the number of paid student memberships and an increase of 15% in life-paid memberships compared to the corresponding period in the previous year.

### HIGHLIGHTS FROM THE PAST YEAR

One strategy adopted by the committee for attracting new members is to elevate the Society's visibility to the geoscience community. Specific activities include delivering presentations at universities, increasing the number of conferences where SEG is represented, and enhancing the Society's presence on social media.

IMAGE continued to be an important venue, allowing staff and committee members to meet new and returning members and better understand how we can serve them. Members proactively took individual initiatives to promote events and activities, with the aim of drawing in new members.

Corporate membership package sales were initiated with both TotalEnergies and SLB as inaugural participants. This resulted in a 3% increase in Associate members and will continue to make a positive impact as employees of these companies apply for membership.

## MINING AND MINERAL EXPLORATION

COMMITTEE CHAIR: SARAH DEVRIESE

BOARD LIAISON: MARIANNE RAUCH

STAFF LIAISON: LAURIE WHITESSELL

### EXECUTIVE SUMMARY

This year, the Mining and Mineral Exploration Committee updated its membership, developed a virtual student symposium in collaboration with the Canadian Exploration Geophysical Society (KEGS), developed a short course that will take place at Roundup, and developed an excellent suite of sessions and a postconvention workshop for IMAGE '24. Members are currently creating content for IMAGE '25.

### HIGHLIGHTS FROM THE PAST YEAR

Members of the committee developed the virtual SEG-KEGS Student Symposium with the KEGS. The symposium highlighted several aspects of mining, field geophysics, computational geophysics, and processing and interpretation. The event had breakout rooms where participants could ask questions on these three categories related to mining and mineral exploration.

Another highlight was "Recent advances and the road ahead" special technical sessions at IMAGE '24, which focused on mining and mineral exploration. There was an excellent panel discussion on artificial intelligence and machine learning for mineral exploration. A half-day postconvention workshop on critical minerals geophysics was led by Ana Curcio.

The committee submitted a proposal to the Association for Mineral Exploration for a geophysics short course at its annual conference in January 2025 in Vancouver, British Columbia. The proposal was accepted.

The membership elected a new technical key contact at IMAGE '24, Xiaolong Wei. The vice chair, Jiajia Sun, moved into the chair position. The technical key contact, Dan Hollis, became the vice chair.

## NOMINATIONS

COMMITTEE CHAIR: ANA CURCIO

BOARD LIAISON: ANA CURCIO

STAFF LIAISON: MANDI DUCKWORTH

### EXECUTIVE SUMMARY

Official ballots were sent 7 May 2024 to 6692 Voting members who were eligible to vote in this year's election. The annual election had a participation rate of 21.64%. The election results include the following.

President-elect: Joseph M. Reilly

Second vice president: Aria Abubakar

Treasurer: Xiaojun Huang

Directors at large: Sandeep Chandola and Joseph O. Ebeniro

District 1: Sharon Teebenny

District 2: Kristie White

District 3: Janel Andersen

District 4: Steve Sloan

District 5: Carmen C. Dumitrescu

District 6: Itzamna Gonzalez

District 7: Phil Mollicone

District 8: Panos Doulgeris

District 9: Charles Ononuju Ofoegbu

District 10: Ibrahim Attia

District 11: Jingjing Zong

District 12: Rob Ross

President-elect: Rocco Detomo Jr. and Joseph M. Reilly

Second vice president: Aria Abubakar and Chester Weiss

Treasurer: José "Pepo" Arce and Xiaojun Huang

Director at large: Uzonna Anyiam and Joseph O. Ebeniro

Director at large: Joongmoo Byun and Sandeep Chandola

District 1: Haibin Di and Sharon Teebenny

District 2: Hector San Martin and Kristie White

District 3: Janel Andersen and Daniel Hollis

District 4: Olusoga Martins Akintunde and Steve Sloan

District 5: Carmen C. Dumitrescu and Richard Gray

District 6: Christy Nandlal and Itzamna Gonzalez

District 7: Kai Gruschwitz and Phil Mollicone

District 8: Panos Doulgeris

District 9: Cyril Boateng and Charles Ononuju Ofoegbu

District 10: Wathik Alaaraji and Ibrahim Attia

District 11: Tong Ping and Jingjing Zong

District 12: Kim Frankcombe and Rob Ross

Survey & Ballot Systems Inc. (SBS) was contracted to conduct the election for the SEG Board of Directors. SBS designed and distributed an electronic ballot or a paper ballot to each Voting member. SBS received, tabulated, and verified the votes and submitted the results to the SEG business office. The Committee on Nominations chair verified the count provided by SBS.

### HIGHLIGHTS FROM THE PAST YEAR

The committee formally submitted its slate of candidates to SEG President Arthur Cheng in February 2024. The slate of candidates is listed next.

## OIL AND GAS RESERVES

COMMITTEE CHAIR: DANIEL MAGUIRE

BOARD LIAISON: OLGA NEDORUB

STAFF LIAISON: ANNABELLA BETANCOURT

### EXECUTIVE SUMMARY

This year, the Oil and Gas Reserves Committee successfully organized and led a double special session at IMAGE that focused on using geophysical techniques in support of oil and gas reserves and resources quantification. The committee received informal approval to use content from the Petroleum Resources Management System (PRMS) and PRMS Application Guidelines (PRMS-AG) in not-for-profit teaching materials at no cost, provided that appropriate citation is given. The Joint Committee on Reserves Evaluator Training (JCRET) was disbanded at the initiation of the Society of Petroleum Engineers (SPE) and American Association of Petroleum Geologists (AAPG). SEG voted to formally exit the organization. In addition, our committee was active in supporting the Water Resources Management System (WRMS) Task Force.

### HIGHLIGHTS FROM THE PAST YEAR

**IMAGE special session.** The Oil and Gas Reserves Committee successfully organized and led a double special session at IMAGE '23 that focused on using geophysical techniques in support of oil and gas reserves and resources quantification. The special session was a huge success. We had eight talks that ran the gamut of how geosciences in general, and seismic in particular, can impact the assessment of reserves and resources.

We also had papers that were linked to members of our committee. Special thanks to Richard Xu, J. P. Blangy, Andrew Royle, and Tiffany Hedayati for having papers written and presented. Receiving papers with real data from Chevron, Exxon, and Woodside was a big accomplishment. Many thanks to all who helped develop and deliver the session and to those who attended.

**JCRET disbandment.** We were informed (though not consulted) that AAPG and SPE withdrew from JCRET. As a result, a motion was prepared and presented to the SEG Board of Directors that SEG should also withdraw. We see this as no loss, as participation in JCRET had limited impact on SEG in relation to our goal of spreading knowledge about reserves and resource quantification to our membership. We will work with SEG and its committees to determine the best way forward with respect to developing and delivering educational products and opportunities to our members.

**PRMS/PRMS-AG update.** There have been ongoing discussions regarding SPE locking PRMS-AG behind a paywall. Discussions have also been on the lack of clarity on how we could use the material that members of the committee wrote in chapter 3 to educate our membership. While no official pronouncements have been made, we were informally told that as long as we cite PRMS and PRMS-AG and do not create classes or presentations for profit, we can use the material for reserves and resources education under the auspices of SEG.

The PRMS is due for an update, and a committee is beginning to solicit ideas for modifications. This process happens rarely. Our committee has provided feedback to those in charge of the rewrite. We made two main recommendations:

- 1) We suggest changing the criteria for a “qualified assessor” to include geoscientists.
- 2) We also suggest including ideas and language around the role and use of reliable technology, similar to what is accepted by the U.S. Securities and Exchange Commission. We think the most obvious reliable technology that needs to be addressed is seismic. In the recently published PRMS-AG chapter 3, the use of seismic as a reliable technology is well described.

**WRMS Task Force.** Two years ago, SEG was approached by representatives of SPE and AAPG to consider becoming a cosponsor of a new document modeled on the PRMS called WRMS. Under the direction of President Arthur Cheng, a broad task force solicited members from across interested domains in SEG to

- Review the draft WRMS document
- Record views on this document
- Draft a motion for the SEG Board about our recommendation of whether or not to cosponsor
- Draft a list of recommendations on how SEG should more broadly engage in water-resource conservation, given the ability of geophysical tools to assist in the evaluation of water resources

The task force has completed its work and prepared a motion to the SEG Board on this issue.

## PASSIVE SEISMIC

COMMITTEE CHAIR: DAVE DILLER

BOARD LIAISON: SERGIO CHÁVEZ-PÉREZ

STAFF LIAISON: ANNABELLA BETANCOURT

### EXECUTIVE SUMMARY

Members of the Committee for Passive Seismic worked throughout the year to plan part 2 of the Geophysical Research for Gigatonnes CO<sub>2</sub> Storage Workshop in Golden, Colorado. This part focused on education for regulators and operators. The workshop was well attended, which encourages organizers to continue to have a second part for future workshops.

### HIGHLIGHTS FROM THE PAST YEAR

The main focus of the committee was on finalizing and delivering part 2 of the Geophysical Research for Gigatonnes CO<sub>2</sub> Storage Workshop in collaboration with the CO<sub>2</sub> Research Subcommittee. Part 2 was titled “Geophysical recommendations for regulators and operators.” The workshop took place 14–19 July 2024, attracting more than 75 attendees.

This year, Dave Diller stepped down from the chair position. Dan Hollis took over in October 2024 as the new chair. Hollis is reinvigorating the focus and activities of the committee, supported by the addition of four new members from the CO<sub>2</sub> Research Subcommittee and two new early-career members.

## PUBLICATIONS

COMMITTEE CHAIR: JEFFREY SHRAGGE

BOARD LIAISON: KYLE SPIKES

STAFF LIAISON: JENNIFER COBB

### EXECUTIVE SUMMARY

The membership of the Publications Committee involves the leaders of other committees within the SEG publications portfolio. Hence, one of the important roles of this committee is to explore cross-committee topics including developing and implementing editorial best practices, identifying common publications ethics challenges and workshopping appropriate responses, and developing strategies to recruit a diverse set of contributors from our global pool of geophysical talent.

### HIGHLIGHTS FROM THE PAST YEAR

One of the important roles of the Publications Committee over the past year was exploring cross-committee topics. Key discussions included developing and implementing editorial best practices, identifying common publications ethics challenges and workshopping appropriate responses, and developing strategies to recruit a diverse set of contributors from our global pool of geophysical talent. Proposals are being developed to implement a cost-recovery model for services provided to other SEG portfolios and a competing interests policy for the publications portfolio.

Across all SEG publications from August 2023 to 2024, several notable achievements were recorded:

- Increased submissions and publications: SEG journals saw an approximate 29% rise in submissions, reversing the prior decline seen in 2021 and 2022. The number of published papers has similarly increased by 11%.
- Enhanced selectivity: Higher submission rates have allowed journal editors to be more selective, as higher rejection rates are often observed in high-impact publications. As of August 2024, rejection rates stood at 53% for *GEOPHYSICS*, 32% for *Interpretation*, and 30% for *The Leading Edge (TLE)*.
- Expanded free content: Production processes now ensure that all introductions to special sections are free to read upon publication, increasing online engagement and citation potential. Staff have also made past introductions free to readers. Open-access technical papers are on the rise, with 18 in 2023 and 26 by August 2024.
- Higher usage: The SEG Library saw a 59%

increase in total page views, with 3,494,368 views from January to August 2024 compared to 2,185,107 in the same period in 2023. Full-text usage also grew by 10%, solidifying the Library's status as SEG's most-accessed web product.

- Data-driven decision making: Editors are using publishing data to guide decisions. Usage statistics, adjusted for access type and publication date, now inform best-paper selection processes. Peer-review and production tracking in *TLE* has accelerated publication for standalone technical papers, while *GEOPHYSICS* and *Interpretation* have cut online publication times from more than 10 days in 2023 to 3.5 days in 2024. Senior editors increasingly use detailed reviewer data to elevate impactful and productive reviewers to editorial roles.
- Tokens of appreciation: In recognition of their service, all masthead editors were granted full online access to SEG journal and meeting-paper content through Library tokens applied directly to their accounts. Editors without existing accounts received guidance on redeeming these tokens. This complimentary access is available throughout their editorial tenure, equipping editors with essential resources to support high-quality reviews.
- Enhanced web features: Since the migration of journal-specific web pages to the SEG Library in 2021–2022, journals have continued to refine content. *TLE* introduced a [dedicated page](#) distinguishing editorial and publishing staff, outlined its [peer-review policy](#), and began including peer-review dates on technical articles to highlight its rapid turnaround times. *Interpretation* launched a [new article type](#) that links outcrops to subsurface structures and clarified [guidelines for expanding conference papers](#) into full-length articles.
- New developments in proceedings: Reference counts for papers from IMAGE '23 were shared with journal editors, helping them target papers for potential expansion into full journal manuscripts. *Interpretation* announced a [special section](#) focused on follow-up papers from IMAGE '23 and '24. Additionally, in June 2024, SEG staff introduced a proposal form to streamline the process for submitting new conferences to be covered in Global Meeting Abstracts collections. Overall, the total number of proceedings papers has increased by 43% from 2023.

## RESEARCH

COMMITTEE CHAIR: STEPHAN GELINSKY

BOARD LIAISON: SERGIO CHÁVEZ-PÉREZ

STAFF LIAISON: ANNABELLA BETANCOURT

### EXECUTIVE SUMMARY

The Research Committee performed a membership refresh by reintroducing auditable one-year terms and collecting appropriate demographic and experience information from all members. Committee leadership was re-energized around providing research workshops. We also continued the expansion of the Early-Career Subcommittee. In addition, we laid the groundwork for the launch of Technology Communities.

### HIGHLIGHTS FROM THE PAST YEAR

Over the years, Research Committee membership had grown stale. Many members joined and stayed indefinitely; however, they were often inactive. The roster was unclear, with different listings in different locations. As previewed in last year's report, we reset all committee memberships and asked members to recommit using a simple survey that captured key demographic information and areas of experience. We now have a clear picture of committee demographics and experience and can proactively recruit new members (e.g., for under-represented experience or geographic areas). We established a Membership Subcommittee to help keep the roster evergreen and to support the chair in making fair and balanced membership decisions. Committee members elected Erkan Ay as vice chair



**Figure 24.** Committee members enjoy dinner together during IMAGE '24.

(chair-elect for the 2025–2026 term). Ay successfully led the CO<sub>2</sub> Subcommittee, which is the template for the new Technology Communities design.

Following the pandemic, the funnel of committee-supported research workshops had dried up. In this report period, three highly successful carbon capture and storage workshops were held in China, India, and the United States. Additionally, research workshops on distributed acoustic sensing, fiber, and full-waveform inversion are being organized for early 2025. The committee increased the number of special sessions and postconvention workshops for IMAGE '24 to more than 15.

The Early-Career Subcommittee continued its organic growth, providing early-career SEG members with the opportunity to network and build relationships across the Society. Several members transitioned to Research Committee membership. In recognizing this subcommittee’s visibility and reach beyond the Research Committee, we plan to transition it from its current structure as a subcommittee to an SEG-wide community in the 2024–2025 period.

SEG President Arthur Cheng challenged the committee to give the various technologies of applied geophysics that our Society champions more focus and visibility. The goal is to improve the quality of workshops, continuing education, lectures, and other Society activities that are focused on the advancement of SEG-relevant technologies. The committee accepted the challenge. Following extensive stakeholder engagement, members drafted a plan to introduce SEG Technology Communities. The Technology Communities will be member-sourced and led by an SEG-president-appointed “technology champion.” Cheng and Committee Chair Stephan Gelinsky introduced the Technology Communities initiative to the SEG membership in the [President’s Page](#) that appeared in the June issue of *The Leading Edge*. The committee developed operating procedures that are intended to help the Technology Communities and their champions be successful, without micromanaging their activities. Pending final Board approval, the initial set of Technology Communities is ready to launch in the 2024–2025 period.

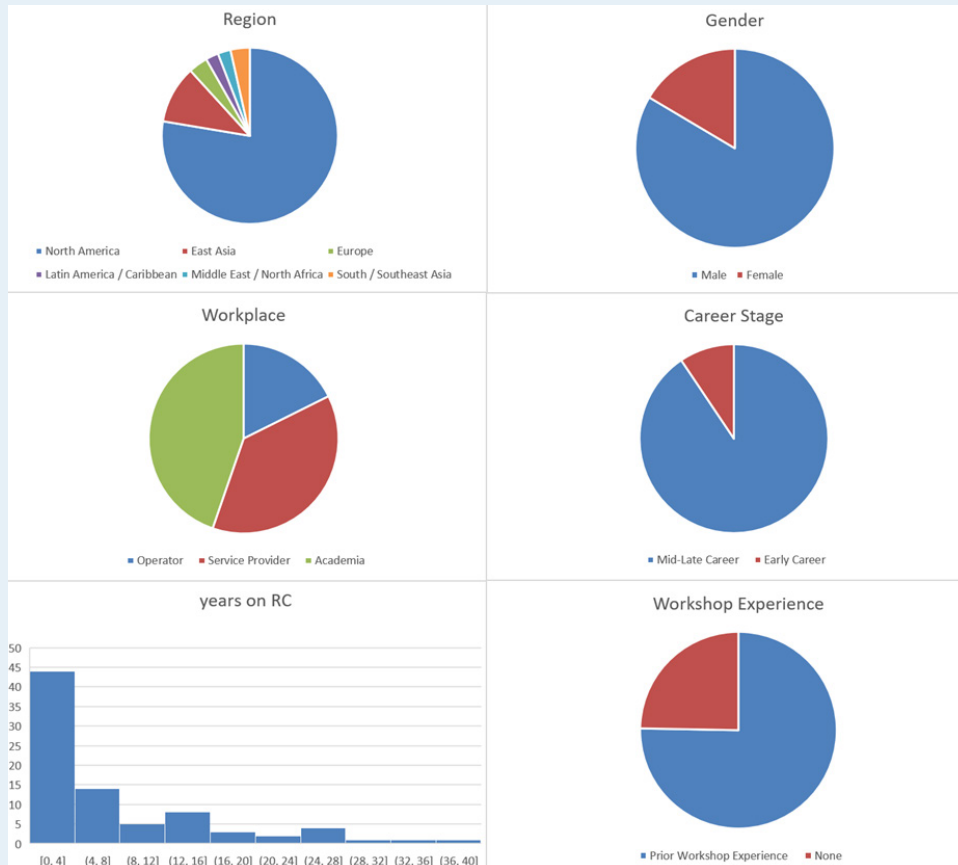


Figure 25. Committee member demographics.

## REVIEWS

COMMITTEE CHAIR: JULIE AITKEN

BOARD LIAISON: KYLE SPIKES

STAFF LIAISON: KELSIE TAYLOR

### EXECUTIVE SUMMARY

This year, the chair and staff liaison continued the pursuit of revitalizing the Reviews Committee. Our aim is to spark renewed enthusiasm and participation that will lead to an increase from one to two book reviews in each issue of *The Leading Edge (TLE)*.

### HIGHLIGHTS FROM THE PAST YEAR

It has been another year of revitalization for the Reviews Committee. During the last few years, we have seen a significant drop in the number of submitted reviews. There are many factors that may account for this including aging demographics within the committee, a move from print to e-book offerings, and postpandemic lethargy.

We have countered this trend by asking for voluntary resignations from committee members who no longer wish to participate and by recruiting enthusiastic members. We revised the Policies and Procedures to reflect updates. We also sent quarterly book lists to all committee members. To specific individuals who had not submitted a review in a timely manner, we encouraged their submission.

The Reviews Committee has 29 members and six available vacancies, which we are currently addressing. The hope is that our revitalization efforts will lead to each committee member providing more book reviews on a timely basis.

This year, we published one book review in each issue of *TLE*. We currently have enough book reviews for publication in *TLE* until the third quarter of 2025. While print books are still offered for review by select publishers, e-books have been chosen more often by our members as of late. This is a good sign for our committee, as print-book options are slowly being phased out from offerings by publishers.

## STUDENTS AND EARLY CAREER COMMITTEE

COMMITTEE CHAIR: KURANG MEHTA

BOARD LIAISON: LILLIAN FLAKES

STAFF LIAISONS: JESSICA DOSTAL AND ANNABELLA BETANCOURT

The Students and Early Career Committee is a rapidly growing committee of SEG. It includes the following subcommittees:

- Challenge Bowl
- Evaluations
- Engagements
- Field Camps
- EPIC
- Scholarships
- SEG EVOLVE

The main objective of this committee is to ensure continuous engagement with students and early-career professionals around the globe. This is achieved through our subcommittees, which address different aspects of technical collaboration and project implementation with contributions from students, early-career professionals, and technical mentors.

### CHALLENGE BOWL

#### EXECUTIVE SUMMARY

This year, the Challenge Bowl continued to offer the opportunity for participants to learn and grow in a fun contest environment. Teams competed in events, leading up to the World Finals.

#### HIGHLIGHTS FROM THE PAST YEAR

In 2024, there were 11 local/regional preliminary contests involving 112 teams around the world. These contests led to the World Finals, which took place during IMAGE '24. There were 21 competing teams in the World Finals. The top-three teams were: Universidad Industrial de Santander in Columbia (first place), Indian Institutes of Technology in Dhanbad, India (second place), and Council of Scientific and Industrial Research (CSIR) National Geophysical Research Institute (NGRI) in India (third place). Table 10 lists all of the contests held during the year.

Regional contests were funded locally. The World Finals and expenses for the program were funded by the SEG Foundation from an endowed fund. The move

to more virtual contests, facilitated by the improved capabilities of QuizXpress, has greatly expanded opportunities for global participation in the program.

**EVALUATIONS**

**EXECUTIVE SUMMARY**

The Evaluations Subcommittee is responsible for evaluating student applications (e.g., SEG/ Chevron Student Leadership Symposium (SLS), Near-Surface Student Research Award, student chapter annual reports, Student Chapter Outreach Grants, and Technical Program Travel Grants). The subcommittee’s primary objective is to ensure that selected SEG students and chapters are prepared to participate in SEG programs and are the best candidates to receive SEG awards and grants.

**HIGHLIGHTS FROM THE PAST YEAR**

The subcommittee has made significant progress in the past year, achieving several key milestones and accomplishments. The subcommittee conducted evaluations of several key SEG programs and grants including

- SLS: At IMAGE ’24, 38 students from 18 countries participated in SLS.
- Near-Surface Student Research Award: The 2024 winner was Daniel May, a PhD student

in geophysics at Stanford University.

- Student Chapter Annual Reports: The Best Student Chapter Award was presented to Kurukshetra University (India). The Most Improved Student Chapter Award was given to Rutgers University – Newark.
- Student Chapter Outreach Grants: Grants were given to Universitas Gadjah Mada in Indonesia, Tribhuvan University in Nepal, and University of Bucharest in Romania.
- Technical Program Travel Grants: This year, 12 students were awarded the opportunity to attend IMAGE ’24 from seven countries.

These evaluations provided valuable insights into the effectiveness of these programs and identified areas for improvement.

**ENGAGEMENTS**

**EXECUTIVE SUMMARY**

In 2024, the Engagements Subcommittee achieved significant milestones in promoting student involvement and expanding global outreach. Through participation at IMAGE ’24 and strategic engagement with student chapters, particularly in Brazil, we enhanced our global presence. The addition of new globally diverse members has allowed us to connect with students

from different regions, helping to diversify our perspectives and broaden our impact. We created a dedicated e-mail channel and increased our presence on LinkedIn, consistently highlighting student opportunities and resources. Moving forward, we remain committed to fostering an inclusive and dynamic environment, where students can share their experiences and ideas, ultimately strengthening the SEG student community.

Date	Location	Format	Number of teams
6 Jan	Western Inter-University Geoscience Conference Local Canadian Society of Exploration Geophysicists (CSEG)	Live	10
14 Feb	Italian Challenge Bowl in Ferrara	Live	7
1 Mar	Mexican Regional	Virtual	11
6 Mar	Rocky Mountain Challenge Bowl in Denver	Live	4
21 Mar	Gulf Coast Challenge Bowl in Houston	Live	5
29 Apr	U.S. Open	Virtual	11
14 May	Asia Pacific	Virtual	24
23 May	Sub-Saharan Africa	Virtual	17
1 Jun	Latin America	Virtual	11
19 Jun	CSEG Finals	Live	7
30 Jul	Middle East	Virtual	5
27 Aug	SEG World Finals	Mixed	21

**Table 10.** Challenge Bowl contests were held throughout 2024.

## HIGHLIGHTS FROM THE PAST YEAR

This year, the subcommittee achieved the following:

- We created a visually impactful team poster to showcase our committee’s mission and objectives.
- The Best Student Chapter Award was presented to Kurukshetra University (India). The Most Improved Student Chapter Award was given to Rutgers University – Newark.
- We actively engaged with students and professionals during IMAGE '24, with notable contributions from Luigi Bianco and Milana Shakhbazova.
- Sarah Tavares reached out to several student chapters in Brazil through a group that includes all of the presidents of the SEG student chapters in Brazil. This group facilitates communication and integration, in addition to speeding up problem solving.
- Our subcommittee welcomed new members, including Ogonna Menaha, Jerrika Mahala Stark, Sabrina Reichert, and Tavares, representing diverse regions of the world. This diversity enhances our ability to connect with a broader student audience, share opportunities, and gather varied perspectives.
- We established a dedicated e-mail address to streamline communication with chapters and students.
- In addition, we continuously highlighted opportunities, news, and updates on our LinkedIn page to keep students informed and engaged.

## FIELD CAMPS

### EXECUTIVE SUMMARY

Field-camp funding remains very limited, and individual awards continue to be small. SEG-funded field camps have global impact. This year, six out of the seven awarded camps took place outside of the United States. Additionally, the 2024 field camp grant student organizers were trained in health, safety, security, and environment (HSSE) at the virtual SEG Field Safety Course.

### HIGHLIGHTS FROM THE PAST YEAR

In 2024, recognizing that field camps are funded by general student funds, the committee required all organizers to be part of an SEG student chapter. SEG received 15 applications for funding,

a decrease from 21 applications in 2023. The total funding requested was US\$117,607.

From the submitted applications, the subcommittee selected eight awardees, totaling \$31,273. Individual award values in 2024 ranged from \$4000 to \$12,000. This year, awards were provided to field camps in Bulgaria, Ghana, Indonesia, Italy, Nepal, Romania, and the United States. The subcommittee continues to partner with the HSSE Committee, chaired by Sharon Teebenny, to assess applicant HSSE plans and send student organizers to the SEG Field Safety Course.

During IMAGE '24, student leaders from the University of Bucharest (Romania) and the University of Naples Federico II (Italy) presented reviews of their 2023 SEG field camps. Also this year, the committee updated its Policies and Procedures to allow for an increase in committee membership.

## EPIC

### EXECUTIVE SUMMARY

EPIC is an important part of SEG that focuses on early-career professionals worldwide. Due to the pandemic, EPIC lost its momentum; however, the hope is that it will regain momentum, and focus will be steered toward relevant programs. This will be made possible by encouraging early-career professionals to volunteer and by collaborating with other similar committees within SEG.

### HIGHLIGHTS FROM THE PAST YEAR

In 2024, there is a newly formed subcommittee that is planning on re-establishing a connection among early-career professionals and getting them interested in volunteering for this exciting team. The EPIC Subcommittee will work with the Early Career Research Subcommittee to gather more traction and members for EPIC.

## SCHOLARSHIPS

### EXECUTIVE SUMMARY

This subcommittee provides a vital link between the geophysicists of today and the geophysicists of tomorrow by awarding funds for college education and providing mentorship to scholarship recipients. In 2024, the committee awarded scholarships totaling US\$246,485 to 66 students from around the world. Committee members serve as mentors to scholarship

recipients, connecting them to technical resources and providing advice on their future careers.

### HIGHLIGHTS FROM THE PAST YEAR

Since its inception in 1956, the SEG Scholarships program has helped advance the field of applied geophysics by encouraging students who excel in the geosciences. Gifts from SEG members, their employers, corporate sponsors, Sections and Associated Societies, and memorial funds given in honor of colleagues, friends, and family members provide substantial merit-based financial awards for deserving students. More than \$12 million in scholarship money has been awarded to date to the top geoscience students in the world.

In 2024, the committee granted scholarships to 66 students in 13 countries, totaling \$246,485. The evaluation process involved each committee member ranking 375 individual applicants based on multiple criteria such as future goals, school performance, publication history, and community involvement. These individual rankings were compiled, and a forced composite ranking was created to determine the best-qualified candidates in each of six categories (freshman, undergraduate, and graduate, each divided into North American and non-North American). Once the ranking was complete, the committee carefully matched students with specific scholarships. In some cases, committee members worked with the assistance of advisory boards that provided feedback and recommendations on applicants. In all cases, the awards were merit based, ensuring that the top students were honored. In addition, Kai Zhang (chair) and Zhemin Tan (committee member) met with scholarship recipients who attended IMAGE '24 for mentoring.

## SEG EVOLVE

### EXECUTIVE SUMMARY

**Energy Exploration.** The Energy Exploration program received 18 team applications from diverse global universities. The teams that applied included geologists, geophysicists, petrophysicists, and reservoir engineers. This created the opportunity to develop integrated teams and project results.

**Carbon Solutions.** The Carbon Solutions 2023–2024 offering culminated with eight teams finalizing project work presented at 2024 CCUS, 2024 CCUS Latin America, and IMAGE '24.

### HIGHLIGHTS FROM THE PAST YEAR

**Energy Exploration.** The pool of applicants was screened, and 12 teams were selected. Lead mentors and associate mentors were assigned to teams based

on the teams' experience level, perceived needs, and expertise of the mentors. Additional mentors served as subject-matter experts. They were available to help any team that needed extra coaching in a particular area.

Teams were assigned data sets from a variety of productive geologic settings in the U.S. Gulf of Mexico and the North Sea. These data sets were used for oil and gas exploration. Additionally, data from the Cooper Basin in Australia were assigned to three teams for geothermal prospecting.

Of the original 12 teams, 10 teams completed their final project presentations, with eight teams presenting their final project at IMAGE '24. The teams that did not finish a final presentation or present at IMAGE had internal organizational or visa issues that could not be resolved.

Successful teams were fully engaged and developed a good appreciation of the benefits of an integrated team. Presentation and communication skills improved throughout the program. The leads were ranked, and the best opportunity was commercially evaluated.

Geothermal concepts were introduced to the Energy Exploration program for the first time. Additional mentors were added to the program to introduce a methodology for hot sedimentary aquifer exploration. Two teams from the University of Calgary and University of Houston were able to articulate key elements of this technology and evaluate commercial cases for geothermal electrical projects.

Mentors were fully engaged with teams to deliver the best possible results tailored to each team. Many mentors volunteered additional hours beyond the original scope of the program, engaging in special mentoring/training sessions with the teams. This resulted in the teams delivering a high-quality professional product and presentation.

Special training in Petrel and Kingdom software packages was held early in the program. Special training models were developed by Jeremy Greene and Jim Hewlett and were delivered appropriately.

All teams who presented a final presentation received an award certificate that reflected the achievement of each team.

**Carbon Solutions.** Programs for CCUS held in March included three posters and an oral presentation, while CCUS Latin America in July included one

oral presentation. In addition, posters and oral presentations were delivered during IMAGE '24.

An exceptional group of experienced CCUS practitioners and domain experts, including operators and state surveys, shared their knowledge with students during the program. The program set high standards for multidisciplinary cohort learning and teamwork.

Energy Exploration alumni are exceptional Carbon Solutions participants, while Carbon Solutions alumni serve as outstanding mentors for the program. Exceptional growth of competency, fundamentals, project-management skills, and communication occurred in all of the teams.

The program is fortunate to have operators and state agencies that allow employees to participate as mentors. The support of experienced mentors allows new mentors to get acquainted and engaged with the students at an appropriate pace. Knowledge-sharing presentations and instructions from previous program offerings have been essential for current and future offerings.

With only two open CCUS data sets, the Energy Exploration data sets have proven to be extremely valuable to repurpose for CCS site selection and evaluation. The SEG EVOLVE Carbon Solutions program succeeds because of the solid foundation of SEG EVOLVE Energy Exploration successes and practices.

SEG would like to thank all donors (ExxonMobil, Arthur Cheng, and Mike Forrest), sponsors, and mentors for their dedication and contribution to building the next generation of professional geoscientists.

## SUSTAINABILITY

COMMITTEE CHAIR: MARIA ANGELA CAPELLO

BOARD LIAISON: LILLIAN FLAKES

STAFF LIAISON: SCOTT SUTHERLAND

### EXECUTIVE SUMMARY

This year, the Sustainability Committee engaged in connecting with multilateral organizations and sister societies to advance its actions and outreach beyond geophysics. An effort was made to expand the profile of the committee through Seismic Soundoff podcast episodes. The committee organized a session and postconvention workshop for IMAGE '24, with global representation of experts in sustainability. The committee chair and chair of the Oil and Gas Reserves Committee led activities toward the endorsement of the Water Resource Management System. They produced a motion and recommendations for the Board of Directors in October 2024. The committee endorsed the Distinguished Lecture on Sustainability, sponsored by the SEG Foundation. The current vice chair, Daniella Bordon, will become chair in 2025. Maria Angela Capello will continue collaborating as founding chair.

### HIGHLIGHTS FROM THE PAST YEAR

**Connections and collaborations.** The Sustainability Committee established connections with multilateral organizations and advanced collaboration with the following:

- Collaborations were made with the United Nations Economic Commission for Europe via the Women in Resource Management Working Group.
- Ipieca was featured in Seismic Soundoff (episode 204) in November 2023.
- The president of the American Geosciences Institute served as a panelist for an IMAGE '24 postconvention workshop on sustainability.
- Capello represented SEG in a Society of Petroleum Engineers (SPE) technical session on sustainability and the Gaia Study Group. Capello also participated in the formulation of an executive panel at the 2024 Annual Technical Conference and Exhibition.
- The American Association of Petroleum Geologists (AAPG) and SEG made a joint effort to rank, select, and shape SUS-I, a session at IMAGE '24.
- The committee initiated conversations to establish collaboration between the International

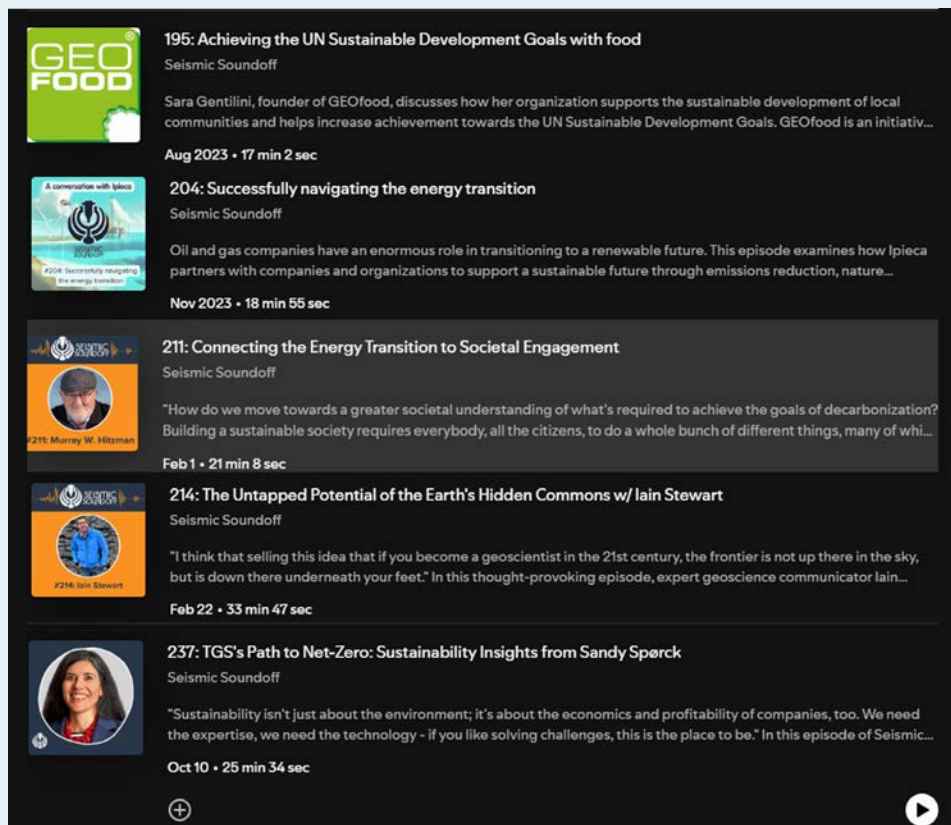
- Association of Promotion of Geoethics and SEG.
- A collaboration with GEOfood enabled the committee to support actions to expand GEOfood to the United States. Several meetings were held with a GeoParks (United Nations Educational, Scientific and Cultural Organization [UNESCO]) representative to the U.S. Congress.
- Work continued with the American Geophysical Union (AGU) to promote “Geoscience in action: Advancing sustainable development.” This is a report published by UNESCO and AGU. It is cosponsored by SEG. Online outreach of the AGU campaign was increased by social-media repostings by SEG and committee members.
- Two meetings were held with the Houston Mayor’s Office, in person and online (October and November 2023), to discuss options to include SEG in the sustainability plans of Houston.

- The committee chair and the chair of the Oil and Gas Reserves Committee helped analyze a potential endorsement of the Water Resource Management System proposed by AAPG and SPE. This resulted in a motion and recommendation for the SEG Board of Directors.
- Brainstorming sessions were held within the committee and with SEG staff to analyze if the committee needs to have a different format to be more effective and to boost member engagement. Some options that were explored included becoming a technical section or program of SEG. The decision was to test the effectiveness of renewed membership.

**Communication.** To raise awareness about the multiple facets of sustainability, the committee used social media for communication and engaged in Seismic Soundoff podcast episodes. The committee was instrumental in five episodes during this period:

- August 2023: Sara Gentilini (CEO of GEOfood)
- November 2023: Isabel Miranda (sustainability director of Ipieca)
- February 2024: Murray W. Hitzman (president of iCRAG)
- February 2024: Iain Stewart (chair in geoscience and society at UNESCO)
- October 2024: Sandy Spørck (executive leader at TGS)

Other activities of the committee related to enhancing communication included brainstorming sessions with Lillian Flakes (Board liaison) and Scott Sutherland (staff liaison). These sessions explored committee re-engagement in webinars and in-person activities.



**Figure 26.** This year, five podcast episodes on sustainability featured individuals from multilateral associations (Ipieca and UNESCO), governmental and civil-society organizations (iCRAG), private initiatives (GEOfood), and the energy sector (PGS/TGS).

**Sustainability course.** The committee analyzed and provided feedback on an SEG sustainability course developed by Capello titled, “The strategic opportunity of sustainability in energy.” The committee endorsed the need for activities such as this in SEG offerings. The course was promoted as part of SEG’s continuing-education portfolio. Plans are to relaunch the course with a different focus in 2025.

**IMAGE '24.** A technical session on sustainability was coorganized with AAPG. A postconvention workshop was also organized. It focused on the importance



**Figure 27.** Social-media posts, such as shown in this example, aimed to raise awareness about events pertaining to the objectives of the committee.

## TECHNICAL STANDARDS

COMMITTEE CHAIR: SHAWN NEW

BOARD LIAISON: KYLE SPIKES

STAFF LIAISON: JENO MAVZER

### EXECUTIVE SUMMARY

The Technical Standards Committee serves as a forum for discussion of geophysical developments for which standards need to be defined. When a standardization challenge is identified that warrants action by SEG, an appropriate subcommittee is appointed to develop standards and make a recommendation to the SEG Board of Directors concerning its adoption.

From August 2023 to August 2024, several important developments occurred. The committee’s focus was on reviewing, compiling, and incorporating key amendments to SEG-Y\_r2.1, culminating in the submission of a final version to the SEG Board of Directors. The Board unanimously endorsed its ratification and subsequent publication.

Following approval, SEG-Y\_r2.1 was promptly made available online and actively promoted. Committee meetings have focused on increasing industry adoption of the standard and enhancing collaboration with the Open Subsurface Data Universe (OSDU) consortium.

### HIGHLIGHTS FROM THE PAST YEAR

**SEG-D updates.** In response to requests, updates were made to Appendix A of SEG-D\_r3.1, which was originally released in 2015 with 59 seismic field recorder manufacturer codes. The appendix was separated from the main document in August 2023 to allow for easier updates. As of July 2024, the appendix includes 65 manufacturer codes and is now available as a [standalone PDF](#).

**IMAGE '23.** During IMAGE '23, the primary team responsible for the SEG-Y\_r2.1 update met to finalize their plans for the revision. They reached a consensus on the final changes needed before submitting it for committee evaluation. The team also endorsed the idea of applying the Creative Commons Attribution 4.0 International (CC BY) license to the revision. This decision permits users to freely copy, distribute, and adapt the standard, while still preserving the copyright held by SEG.

**SEG-Y\_r2.1 ratification.** After multiple internal rounds of finalizing edits, SEG-Y\_r2.1 was completed in October 2023. This was timed to coincide with its submission for review at the November 2023 SEG Board of Directors meeting. The Board, after

thorough discussion, unanimously agreed to publish the revised standard in November 2023.

**SEG-Y\_r2.1 announcement.** Following the Board's approval, the [revised standard](#) and a [public announcement](#) released online via the SEG Library. A condensed version of the announcement was shared on social media, receiving widespread positive feedback. A notable comment on LinkedIn praised the revision for addressing long-standing issues while preserving vital information. The standard was further [promoted](#) in the January 2024 issue of *The Leading Edge*.

**SEG-Y\_r2.1 early adoption.** In March 2024, the Norwegian Offshore Directorate (SODIR [formerly the Norwegian Petroleum Directorate]) announced plans to require SEG-Y\_r2.1 for geophysical data reporting. Public comments were solicited by May 2024, with a revision planned for September 2025. The committee will support this transition by providing use case examples and promoting broader industry adoption.

**SEG Wiki updates.** The release of SEG-Y\_r2.1 marked the first significant contribution from the committee in more than six years. The SEG Wiki, a key resource containing various pages on standards, is one such conduit that had not seen updates since its creation. To modernize this resource, links to standards throughout the SEG Wiki were refreshed. Following Board approval of SEG-Y\_r2.1, its [dedicated page](#) on the SEG Wiki also received revisions.

**Committee leadership.** To ensure continuity, SEG's Board extended the current chair's tenure for one year in November 2023. In August 2024, Joel Allard was appointed to serve as chair for 2024–2025, with Shawn New acting as vice chair. Allard's extensive experience and deep knowledge will provide valuable leadership to the committee in the year ahead.

**IMAGE '24.** As stated in last year's report, one of the committee's goals is enhancing collaboration with the OSDU consortium. To that end, Jill Lewis volunteered to serve as representative to the OSDU and convened a meeting at IMAGE in August 2024. The attendees, drawn from both SEG's standards community and those interested in OSDU activities, discussed the importance of modernizing data exchange formats to enhance interoperability and artificial intelligence/machine learning capabilities in the oil industry.

## THE LEADING EDGE EDITORIAL BOARD

COMMITTEE CHAIR: CHESTER J. WEISS

BOARD LIAISON: KYLE SPIKES

STAFF LIAISON: STEVE BROWN

### EXECUTIVE SUMMARY

*The Leading Edge (TLE)* continues to be SEG's principal fast-turnaround publication for Society news and broad-interest peer-reviewed technical content. It is organized around monthly special sections that balance emergent trends with advances in traditional themes of exploration geoscience. *TLE* Editorial Board membership reflects diversity across industry, academia, and U.S. National Laboratories. However, it is currently discordant with gender and geographic distributions within the Society. This possibly limits *TLE*'s potential as a leading global publication for the geosciences. *TLE* remains impactful to SEG's research community, with strong citation counts from the collective bibliographies of IMAGE '24. The previous years' trend in declining submission numbers appears to have reversed itself, yet reviewer fatigue persists as an ongoing challenge to providing quality peer review.

### HIGHLIGHTS FROM THE PAST YEAR

#### **Changes in board makeup effective August 2024.**

Chester Weiss ended his role as board member and chair. Heather Bedle expanded her role from board member to chair. New board member G. Didem Beşkardeş onboarded to fill Weiss's vacancy.

**Journal data.** *TLE* continues to lead the SEG publications portfolio in rapid peer review (49.8 days from submission to first decision) and time to publication (5.4 months from submission to publication), representing a key element to the value proposition for contributing authors. *TLE* continues to have the most-accessed content in the SEG Library each month, with 21 articles appearing in the monthly top-five lists so far this year. Authorship demographics are roughly divided in thirds across industry, academia, and other, with the majority of papers coming from authors outside the United States, thus largely reflective of the global SEG constituency. Special-section topics for 2024 are reflective of *TLE*'s vision to balance traditional and emergent themes in exploration geophysics (Table 11) and continue to attract a strong response from prospective authors. Overall submission counts in 2024 were up approximately 25% from 2023. Notably, the 29% rejection rate for submitted papers over this same time period is the highest it has been in several years.

**Best Paper.** The 2023 Best Paper in *The Leading Edge* Award by vote of the *TLE* Editorial Board

Month	Special section	Special-section Papers	Standalone Papers
January	Microseismic monitoring	3	3
February	The future of applied geophysics	4	2
March	Imaging faults and fractures	3	2
April	Gravity, electrical, and magnetic methods	3	2
May	Rock physics	3	2
June	Subsurface uncertainty	4	1
July	General submissions	5	0
August	Geophysics and sustainability	8	0
September	The Eastern Mediterranean	5	1
October	Geophysical methods in archaeology	4	1
November	Fiber optics	6	2
December	Reservoir characterization	9	0
<b>Total</b>		<b>57</b>	<b>16</b>

**Table 11.** Summary of *TLE* special-section themes and published paper counts for 2024.

goes to “[Seeing through the CO<sub>2</sub> plume: Joint inversion-segmentation of the Sleipner 4D seismic data set](#)” by Romero et al. Honorable mentions are “[From FWI to ultra-high-resolution imaging](#)” by Espin et al. and “[Monitoring casing corrosion of legacy wells using CSEM: Implications for large-scale energy and CO<sub>2</sub> storage projects in shut-down hydrocarbon fields](#)” by Zonetti et al.

**JEDI.** The *TLE* board partnered with the SEG Justice, Equity, Diversity, and Inclusion (JEDI) Committee through the Ambassador program and board member and JEDI Committee member, Ramesh Neelamani, to elevate awareness of JEDI best practices in the execution of board duties, such as election of board members and evaluation of submitted manuscripts.

**Autonomy and ethics.** The *TLE* Editorial Board remains eager to move forward and partner with the SEG Board of Directors and others in SEG leadership regarding the issues of editorial autonomy and Society ethics as described in the 2023 Annual Report:

“... The broad Societal reach of *TLE* places us in a unique position among SEG publications of potentially communicating an “endorsement” of invited authors who have demonstrated leadership

in the geosciences through strong technical or programmatic impacts. Instances where an author is the subject of a potential breach of Society ethics guidelines presents *TLE* with a dilemma in the message it sends. Action is sought from the SEG Board of Directors to clarify Societal obligations, editorial freedom, and best practices for handling these rare instances, where issues of due diligence, indemnity, legal exposure, and anonymity are inextricably intertwined. For example, this may take the form of a position statement drafted by the editorial board or an endorsement of one generated within the Publications Committee. Regardless of the document’s origin within SEG, *TLE* leadership [...] sees this as an issue greater than *TLE* itself and is eager to work with the Board of Directors, Publications Committee, and relevant stakeholders toward formulation of an actional set of guidelines that embodies SEG values.”

As of August 2024, the principal concern described here remains unresolved, and the *TLE* Editorial Board awaits feedback from leadership outside of *TLE*.

## TRANSLATIONS

COMMITTEE CHAIR: GANG YU  
BOARD LIAISON: KYLE SPIKES  
STAFF LIAISON: JENNIFER COBB

### EXECUTIVE SUMMARY

The long-term project to produce a Spanish translation of Robert Sheriff's *Encyclopedic Dictionary of Applied Geophysics* in print continued. Almost all letters have been edited and sent to composition. Volunteer review of those files is ongoing. SEG and Petroleum Industry Press are once again collaborating on translations projects.

### HIGHLIGHTS FROM THE PAST YEAR

Translations Committee members engaged in the project to produce a Spanish translation of Robert Sheriff's *Encyclopedic Dictionary of Applied Geophysics* in print continued to meet biweekly throughout the year. Almost all letters (chapters) have been composed and are being reviewed by project volunteers. Remaining letters include V, W, and Z, along with some appendices. Some volunteers who were active early on in this project have rejoined the effort and provided a boost to the team.

One translation proposal was submitted to the Books Editorial Board and ultimately accepted. The project stalled because of unforeseen circumstances. In August, Petroleum Industry Press enquired about translating some titles, and agreements have been produced.

## WOMEN'S NETWORK

COMMITTEE CHAIR: TERESA SANTANA  
BOARD LIAISON: ANA CURCIO  
STAFF LIAISON: PAOLA VERA

### EXECUTIVE SUMMARY

This year, the Women's Network Committee (WNC) continued with several initiatives including leading a variety of webinars, offering a resume-review service, publishing two quarterly newsletters, offering a book club, commemorating International Women's Month, and organizing content for IMAGE '24. Additionally, the committee held the Elevator Pitch workshop series, among other activities.

### HIGHLIGHTS FROM THE PAST YEAR

This year started with the first edition of the WNC Book Club. Four sessions, moderated by the WNC executive team, were conducted monthly. The selected book, *How Women Rise* by Sally Helgesen and Marshall Goldsmith, is a guide for women on how to advance in their careers by breaking 12 habits that hold them back. It was a great experience, and positive feedback was received.

The committee organized six webinars during 2024 on diverse topics (technical and nontechnical) including spectral decomposition methods, water quality and sustainability, lithium monitoring, leveraging volunteer roles for career success, and more. All recordings are available on the WNC's [YouTube channel](#).

The committee continued to offer a resume-review service for students and early-career professionals in the fourth quarter of 2024. Volunteers reviewed resumes and provided feedback to participants.

The WNC organized several activities for International Women's Month including a live panel about inspiring inclusion, a movie afternoon sponsored by SEG featuring the story of a pioneer woman immigrant in the early 1900s, and social-media campaigns on women's achievements in geophysics and voices of STEM. Overall, it was a successful and busy month that celebrated and supported women in geophysics worldwide.

Student Communities continued holding their Ask-Me-Anything sessions. The sessions allow

leaders in industry and academia to provide insight and guidance to students around the world.

The committee published two quarterly newsletters in January and June, providing information on upcoming events, conferences, and initiatives for all subscribing SEG members. Our presence on LinkedIn continued to grow, with initiatives and activities highlighted on social media.

Additionally, the committee collaborated with the following to organize Gathering Place activities for IMAGE '24:

- American Association of Petroleum Geologists (AAPG) Women's Network
- SEG Justice, Equity, Diversity, and Inclusion Committee
- AAPG Young Professionals
- Association for Women Geoscientists
- Women in Geothermal

One of the Gathering Place activities was a celebration that honored past and current women leaders in professional societies, where the three SEG past women presidents were recognized for their contributions. In addition, we hosted a breakfast and lunch, several panels, and Ask-Me-Anything sessions.

In the fourth quarter of 2024, we launched a new initiative called "Never miss an opportunity: Practice your elevator pitch," which is a workshop series. Two sessions were conducted by an experienced SEG trainer, aimed at helping participants learn how to better promote themselves, break barriers, and achieve career goals.

## SECTION FIVE:

# Foundation Report

## FOUNDATION BOARD OF DIRECTORS

CHAIR: ROCCO DETOMO JR.

BOARD LIAISON: JOHN EASTWOOD

The SEG Foundation advances geophysics today and inspires the geoscientists of tomorrow through fundraising and providing financial support for innovative activities and programs that are delivered by SEG for the benefit of geophysicists, their professional community, and the general public.

The SEG Foundation is a U.S. Internal Revenue Service 501(c)(3) charitable organization, which means donations to the Foundation are tax deductible in the United States. The Foundation financially supported 16 programs that benefited thousands of SEG members in 2024 by contributing more than US\$1.1 million (forecasted) to SEG from the combination of endowment spending and numerous pass-through donations from corporations and individuals. At the end of 2024, the Foundation's net assets were \$25.8 million, including an endowment of approximately \$18.8 million. The annual spending rate for endowed programs was 4%.

The SEG Foundation took positive steps forward in growing its Trustee Associates (TAs) pool of donors and added nine new TAs who took advantage of the generous matching funds provided by Jeff Springmeyer, Hank Hamilton, Tom Smith, Arthur Cheng, John Havens, Robert Hobbs, Mike Forrest, Larry Galloway, and Mark Leonard. The Foundation gave four awards in 2024 including its highest award, the Dick Baile Exemplary Service Award, to Arthur Cheng. In addition, there were three new awards this year:

- The Director's Award was presented to David Bartel.
- The Sally Zinke Individual Impact Award was presented to Robert Merrill.
- The Thomas and Evonne Smith Corporate Impact Award was presented to the Baker Hughes Foundation.

We would like to thank the hundreds of individuals who contribute their time, talent, and treasure to the SEG Foundation each year. You enable the education and continued development of thousands of members globally, as well as the application of geophysics in the service of humanity. An additional

special thank you goes to all of our lifetime TAs and NextGEO (Sustaining Trustee Associates) Annual Donors who have committed their resources to supporting the operations of the SEG Foundation.

### 2024 FUNDRAISING RESULTS

- \$3,088,000

### CORPORATE GIVING: \$409,600

- Chevron — Student Leadership Symposium and scholarships: \$200,000
- Shell — Honorary Lecture Series: \$100,000
- ExxonMobil — SEG EVOLVE Solutions student program: \$50,000
- BGP — Mandarin translation of SEG On Demand: \$50,000
- GPI — TA Social: \$3200
- SLB — TA Social: \$3200
- TGS — TA Social: \$3200

### SCHOLARSHIPS: \$293,000

### SOCIETY/SECTION GIVING: \$60,000

- AAPG Foundation — GWB: \$60,000

### INDIVIDUAL GIVING: \$2,618,000

- Major Gift Donors (donors giving more than \$10,000) — Unrestricted: \$2,172,000 from 10 generous donors; program restricted: \$181,000 from six generous donors

### TRUSTEE ASSOCIATE GIVING

- General TA giving (including major donors): \$283,000
- Program restricted TA giving (including major donors): \$193,000
- TA matching: \$84,000 given by TA matching contributors; Nine new TAs in 2024
- 36 Sustaining TAs (more than \$2000/year)

**2024 Foundation Board of Directors.** At the end of 2024, the Foundation Board of Directors

included Rocco Detomo Jr. (chair), Shipeng Fu (vice chair), Martin Stupel (treasurer), Alan Huffman, Alex Biholar, Alison Small, Andrea Lovatini, Bill Abriel, Chitty Chang, Dan Kahn, Maria Angela Capello, Mohammed Badri, Neal Goins, Ray Farrell, Susan Webb, Tana Pool, Tony Lupo, Arthur C. H. Cheng, John Eastwood, and Ken Tubman. A late-term resignation in 2024 was accepted for Maria Angela Capello.

**Fundraising in 2025 and beyond.** The SEG Foundation is focused on broadening the base of support for the future of applied geophysics. The Foundation aims to assist SEG in raising the funds necessary to promote the science, support our members, grow our humanitarian impact, and ensure that the next generation of geophysicists have the right opportunities to begin their careers so they will, in turn, pass the torch to the next generation.

In support of this effort, the Annual SEG Foundation Donor Luncheon hosted nearly 200 attendees at IMAGE '24. Student representatives from many of the programs that SEG members support (such as Scholarships, SEG EVOLVE, Field Camps, Travel Grants, and Geoscientists *without* Borders®) also attended and interacted with donors. This provided our members with the opportunity to learn about their impact and demonstrate the benefit of geophysics to the society at large.

## SECTION SIX:

# Technical Section

## NEAR-SURFACE GEOPHYSICS TECHNICAL SECTION

COMMITTEE CHAIR: GEOFF PETTIFER

BOARD LIAISON: CATHERINE TRUFFERT

STAFF LIAISON: LAURIE WHITESELL

### EXECUTIVE SUMMARY

In an administrative context, the Near-Surface Geophysics Technical Section (NSTS) updated its membership, conducted elections, and actively participated in SEG Council work sessions in 2024. Our work with the Council focused on improving the voice of near-surface geophysics in the SEG Council through the Council Task Force. We had formative discussions on governance and strategic planning. We also conducted a member survey to assess member needs and ideas and inform strategy development.

In terms of providing members value, there was an increase and awareness of offerings, the committee further consolidated the activities of technical and peer-support subcommittees, supported the Summit on Drone Geophysics, built a record number of activities for IMAGE '24, and hosted many webinars. An initiative for timelier communication of brief news items, in the form of the SEG Near-Surface Geophysics NewsSplash, was introduced. It complements the quarterly SEG NSTS Near-Surface Views newsletter.

### HIGHLIGHTS FROM THE PAST YEAR

Much of 2024 was devoted to a task force that focused on the growth of near-surface geophysics in SEG. The task force met several times, separately from the regular monthly NSTS meetings, to discuss governance and strategic planning. The task force was approved and set up under the auspices of the SEG Council at IMAGE '23. The U.S. near-surface geophysics landscape; growth and collaboration opportunities and options; strengths, weaknesses, opportunities, and threats (SWOT) analyses; and possible big ideas to fast-track via Board support were discussed, with the agreed strategy process to be informed by data and the wider membership opinion. A membership survey was designed based on these discussions, and issues and ideas were gathered. It was conducted prior to IMAGE '24, with a possible follow-up survey if needed to determine members' views on various options. The strategy informed by the members' responses is planned to be finalized in 2025 and presented for SEG Council support at IMAGE '25, prior to being sent to the SEG Board of Directors.

The NSTS continued to consolidate the activities of the recently formed subcommittee on hydrogeophysics. The Student, Global, and IMAGE subcommittees were also active. The Hydrogeophysics, Global, and Student subcommittees conducted generally well-attended webinars to bring near-surface geophysical content to a global audience. The students had two webinar series: one on open-source software and the other on critical skills.

The Hydrogeophysics Subcommittee teamed up with the SEG Europe Regional Advisory Committee at the beginning of the year to host a series of webinars from researchers at Aarhus University. A major emphasis of some of the webinars was on career development for students and early-career professionals in hydrogeophysics, with invited presenters from academia, industry, and research organizations.

Planning was conducted by the Hydrogeophysics Subcommittee for a proposed workshop in February 2025 titled "Improving our understanding and approaches to uncertainty in groundwater science." Meanwhile, the subcommittees continued to develop meaningful content on topics such as geohazards in India, GPRPy, and ground-penetrating radar for maize crops.

The IMAGE Subcommittee developed record technical-program contributions for IMAGE '24. The group developed 24 technical sessions including seven special, three oral, and 14 poster sessions. The NSTS also developed seven panel discussions and two postconvention workshops, conducted a reception where NSTS honors and awards were presented, and hosted a Near-Surface Pavilion where further presentations from exhibitors and other groups and panel discussions were given.

The 4<sup>th</sup> Summit on Drone Geophysics was successfully conducted in 2023. The NSTS supports the Summit, which is independently organized by a committee made up of key drone geophysics industry and research leaders. This year, there are two platinum and six gold sponsors, which are gratefully acknowledged and show the sustained importance and relevance of this event for the growing community of users of drone geophysical approaches.

Finally, and importantly, at IMAGE '24, we recognized SEG Near-Surface stalwart Rick Miller as an Honorary NSTS Life Member and USGS Hydrogeophysics stalwart John Lane as the Harold Mooney Award recipient.

SECTION SEVEN:

# Subsidiaries Reports

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## SEAM BOARD OF DIRECTORS

CHAIR: ARIA ABUBAKAR

BOARD LIAISON: ANA CURCIO

In 2024, SEAM welcomed a new Executive Committee led by Aria Abubakar (chair), Jim Hollis (vice chair), and Rich Cieslewicz (treasurer). The SEAM Board of Directors included Nick Moldoveanu, Mehmet Tanis, Glenn Wilson, Werner Heigl, and Chengbo Li, with Ana Curcio serving as the SEG Board liaison. Paola Vera, SEG's director of technology, continued to manage SEAM's operations. In October, the SEG Board of Directors reappointed Moldoveanu for another three-year term as a director. Sissy Theisen and Matthias Imhof were elected in November as new directors to serve during the 2025–2027 term.

The Executive Committee convened monthly to address SEAM's financials, business models, and governance matters. Key accomplishments by the SEAM Board include the following:

- Completed confidentiality and data publication guidelines for project participants
- Prepared and approved a new data sales agreement, enabling third parties to bring new licensees to SEAM's pipeline
- Facilitated the planning and preparation of SEAM's IMAGE '24 special session
- Appointed new directors to strengthen our governance

The SEAM Board remains committed to ensuring that SEAM's operations are conducted responsibly, both fiscally and legally.

**CO<sub>2</sub> Sequestration project.** The CO<sub>2</sub> Sequestration project is now in its third year. Leadership meetings were held quarterly to review expenditures and make critical decisions, while technical teams convened weekly to address project-specific tasks. Key accomplishments for the Onshore Aquifer pilot include the following:

- Completed and delivered 3D surface seismic imaging
- Finalized 2D simulations, imaging, and vertical-seismic-profiling simulation

- Concluded work on magnetotellurics and controlled-source electromagnetic

The development of a gas-depletion scenario is under way for the marine model, and the pilot microseismic work is currently in progress.

Advanced Geophysical Technology (AGT) played a pivotal role in 2024. They completed critical simulations and worked closely with SEAM's technical project manager to maintain quality and address project requirements. For a detailed project update, please see the [December issue](#) of *The Leading Edge*.

**SEAM data management and sales.** SEAM continues its partnership with AGT for hosting and distributing SEAM products. This includes long-term network-accessible storage and physical data management under AGT's stewardship. A new sales agreement allows collaboration with third parties to license nonproprietary SEAM products, supporting revenue growth and technology development.

**Strategies.** Key strategies in 2024 included the following:

- We launched a global social-media campaign to engage current users and attract new licensees.
- SEAM products were promoted at local and global events. SEAM hosted a special session at IMAGE '24, featuring model applications from industry and academic users.
- We worked on multidata licensing to academic and industry partners. The SEAM Board will work on a new research pool model evaluation in the first quarter of 2025.
- We executed sales agreements, allowing third parties to help license nonproprietary SEAM products to increase revenue.
- We continued updating SEG's SEAM webpage with comprehensive product details and additional resources.
- Additionally, we planned a webinar series, highlighting SEAM's current projects and completed models to enhance community learning and visibility.

**Future releases.** SEAM will release its artificial intelligence products for licensing in February 2025. The SEAM Board and Artificial Intelligence Benchmark Task Force will explore public-interest applications and frameworks for future research collaborations.

**SEAM future programs.** CO<sub>2</sub>.2 is a new three-year project addressing advanced geologic and geophysical challenges in CO<sub>2</sub> injection. It will launch in the fourth quarter of 2025. This project will be a continuation of the current program and will welcome new participants.

The Leading Edge Acquisition project (LEAP) will focus on transitional zones (from land to shallow and deep water). It will also start in the fourth quarter of 2025. SEAM’s cooperative industry approach aims to tackle a cost-effective way to simulate structure, stratigraphy, reservoir properties, and noise via numerical modeling for imaging, blended acquisition, compressive sensing, and 3D full-waveform inversion applications.



Figure 28. The 2024 SEAM Board of Directors.

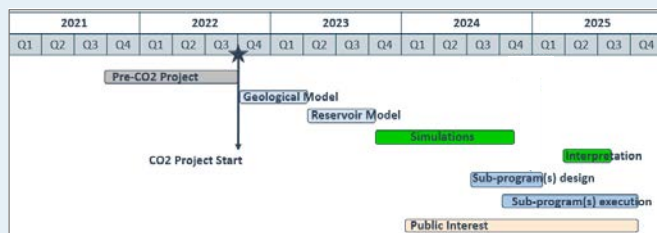


Figure 29. SEAM CO<sub>2</sub> project timeline.

## SEG GLOBAL INC.

CHAIR: JUNCHAO LUO  
STAFF LIAISON: ARTHUR CHENG

This year, the SEG China office continued to carry out strategies from the SEG Global Inc. Board of Directors. Some of our accomplishments include the following:

- We held well-organized events, enhanced the impact of the SEG brand, and increased the efficiency of our operations.
- We designed customized programs, attracted more professionals, and expanded the footprints of SEG to companies and universities in China.
- We continued strengthening connections with industry, academia, organizations, and individuals through collaborated events.
- Additionally, we inspired SEG members to proactively organize more SEG events in different areas to connect members globally.

## EVENTS

In 2024, we organized and participated in 23 events. This included four workshops, five one-day short courses, five visual recording courses, one consulting service for Tarim Oilfield, one two-day in-house training course for BGP, two two-day training courses for the public, and two BGP Cup National College Students Competitions, and many more. Some of these activities are detailed next.

**GEM.** The International Workshop on Gravity, Electrical, and Magnetic Methods and Their Applications (GEM) was held 19–22 May 2024 in Shenzhen. It was supported by the Southern University of Science and Technology. More than 230 individuals from eight countries participated. Following the event, Yaoguo Li and Xiong Li presented a 1.5-day public short course in Chengdu.

**Tarim.** On 3–5 June 2024, with support from Tarim Oilfield, we collaborated to organize the 1<sup>st</sup> Tarim Ultra-Deep Oil and Gas Exploration Technology Workshop in Kolar. More than 100 professionals participated. The workshop focused on technical communications about the challenges in this area.

**Fiber optics.** The Workshop on Fiber Optics Sensing for Energy Applications was held 21–23 July 2024 in Xi’an. It

was cohosted with BGP and sponsored by 12 exhibitors, companies, and universities. The event attracted more than 100 attendees and two SEG student chapters.

**CCUS.** The Advancing Carbon Capture, Utilization, and Storage (CCUS): East Asia Perspective Workshop took place 10–13 November 2024. It was cohosted with the China University of Petroleum (East China). More than 40 speakers from around the world presented both onsite and online. Besides the financial and overall support from the China University of Petroleum (East China), this event also received financial support from the SEG Foundation for student registrations.

### PACKAGE OF SERVICES

In 2024, SEG China created a package of services that includes a global workshop, in-house training courses, visual courses, database building, and consulting services. Through this, we aim to provide targeted support to corporations based on long-term developing strategies of the company, which gradually established a stronger and closer strategic partnership between us and the stakeholders.

### PUBLIC COURSES

The SEG China office has been striving to create and promote public courses. In 2024, we organized three public courses including one on 30–31 May in Chengdu, one on 3 June in Kolar, and one on 6–7 November in Beijing.

### STUDENTS AND EARLY-CAREER PROFESSIONALS

This year, we aimed to organize educational events for students and early-career professionals. We worked with the China University of Petroleum (Beijing) and China University of Petroleum (East China) to hold the BGP Cup National College Students Competitions in August and October.

In late 2024, the SEG student chapter at the Southwest University of Petroleum held the 3rd Student Technical Workshop. They collaborated with three other student chapters in the Chengdu area and had support from the SEG China office.

In November, the SEG student chapter at the Chengdu University of Technology organized a workshop. Additionally, SEG student chapters at the China University of Petroleum (East China), China University of Petroleum (Beijing), University of Electronic Science and Technology of China, and Southwest

University of Petroleum hosted the SEG China Lecture Series by Li Yingping in October and November.

Additionally, one student team from China participated in SEG EVOVLE, one team attended the Student Leadership Symposium during IMAGE '24, and two teams joined the SEG Challenge Bowl hosted by SEG Asia Pacific.

### INITIATIVES TO INCREASE MEMBERSHIP AND OUTREACH

The SEG China office has been creating strategies to continue building a friendly and connected environment for SEG members in China. We also hope to inspire students and early-career professionals to create more programs to benefit themselves and the Society.

According to SEG statistics (up to 29 October 2024), there are 1185 SEG members in China. This is an increase of 6.9% from 2023. These numbers include 232 Student members, 355 Associate members, and 595 Active members.

We also had an increased number of life-paid members in China this year. This indicates that members in China have shown loyalty to SEG and willingness to serve and engage in our community throughout their careers.

The SEG China office will continue strengthening all of the traditional and innovative programs tailored for members. We will also continue to develop more courses and events in China to meet different levels of needs for different types of members.

SECTION EIGHT:

# Yearbook

# 2024 YEARBOOK



SOCIETY OF EXPLORATION GEOPHYSICISTS

# 2024

## YEARBOOK



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## 2023–2024 Board of Directors



**PRESIDENT**  
Arthur C. H. Cheng



**PRESIDENT-ELECT**  
John Eastwood



**FIRST VICE PRESIDENT**  
Mauricio Sacchi



**SECOND VICE PRESIDENT**  
Marianne Rauch



**VICE PRESIDENT, PUBLICATIONS**  
Kyle Spikes



**TREASURER**  
Mike Mellen



**PAST PRESIDENT**  
Kenneth M. Tubman



**SECRETARY**  
James C. White



**DIRECTOR AT LARGE**  
Sergio Chávez-Pérez



**DIRECTOR AT LARGE**  
Ana Curcio



**DIRECTOR AT LARGE**  
Constantine Tsingas



**DIRECTOR AT LARGE**  
Lillian G. Flakes



**DIRECTOR AT LARGE**  
Olga I. Nedorub



**DIRECTOR AT LARGE**  
Catherine Truffert



**CHAIR OF THE COUNCIL**  
Allen J. Bertagne

## 2023–2024 Council Members

### Chair of the Council

Allen J. Bertagne

### Vice Chair

John L. J. Duhault

## SEG Section Representatives

### Asociación Argentina de Geólogos y Geofísicos Petroleros (AAGGP) [1]

Luis Vernengo

### Asociación Colombiana de Geólogos y Geofísicos del Petróleo (ACGGP) [1]

Flover Rodríguez

### Asociación Mexicana de Geofísicos de Exploración (AMGE) [1]

Mark Morford

### Australian Society of Exploration Geophysicists (ASEG) [2]

Eric Battig  
Randall Taylor

### Bay Area Geophysical Society (BAGS) [1]

Kris MacLennan

### Billings Geophysical Society (BGS) [1]

Tom Hewett

### Canadian Exploration Geophysical Society (KEGS) [1]

Micki Allen

### Canadian Society of Exploration Geophysicists (CSEG) [2]

John L. J. Duhault  
Dennis Ellison

### Chamber of Geophysical Engineers of Turkey (CGET) [1]

Emin Candansayar

### Coastal Bend Geophysical Society (CBGS) [1]

Subbarao Yelisetti

### Dallas Geophysical Society (DGS) [3]

Trevor Richards  
Joel Scott  
Morgan Brown

### Deutsche Geophysikalische Gesellschaft (DGG) [1]

Erik Saenger

### Dhahran Geoscience Society (DGS) [1]

Ezzedeem Alfataierge

### Emirates Society of GeoScience (ESG) [1]

Guillaume Cambois

### Geophysical Society of Alaska [1]

Loren Zeigler

### Geophysical Society of Houston [5]

Peter Eick  
Katie Baker  
Patrick Corwin  
Mihai Popovici  
Joe Reilly

### Geophysical Society of Pittsburgh [1]

Joel Starr

### Geophysical Society of Tulsa [1]

Jamie Rich

### Geoscience Energy Society of Great Britain (GESGB) [1]

Alan Fourn

### Jackson Geophysical Society (JGS) [1]

Karl Kaufmann

### Korean Society of Earth and Exploration Geophysicists (KSEG) [1]

Sukjoon Pyun

### National Committee of Geophysicists of Azerbaijan [1]

Said Sadykhov

### Near Surface Technical Section [3]

Geoff Pettifer  
Lee Slater  
Kennedy Doro

### Pacific Coast Section of SEG (PCS) [1]

Gary Myers

### Permian Basin Geophysical Society (PBGS) [1]

Sumit Verma

### Potomac Geophysical Society (PGS) [1]

Cathy Enomoto

### Romanian Society of Geophysics [1]

Victor Mocanu

### San Antonio Geophysical Society [1]

Bob Critchlow

### Scandinavian Visualization Society [1]

Francisco Porturas

### Sezione Italiana EAGE-SEG (IESS) [1]

Andrea Tognarelli

### Sociedad Venezolana de Ingenieros Geofísicos (SOVG) [1]

Miguel Bosch

### Sociedade Brasileira de Geofísica (SBGf) [2]

Débora Barretto  
Paulo Johann

The number of Section representatives for each Section is listed in brackets. Section and Associated Society representatives listed above were representatives during the 1 August 2023 to 31 July 2024 Council year.

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## Section Representatives (continued)

### Society of Exploration Geophysicists, Algeria [1]

Mohammed Farfour

### Society of Exploration Geophysicists, Beijing (SEG Beijing) [1]

Yanlin Huang

### Society of Exploration Geophysicists of Japan [2]

Koji Kashihara

Kazuya Shiraishi

### Society of Petroleum Geophysicists, India (SPG) [1]

Vishal Shastri

### Thailand Society of Exploration Geophysicists (TSEG) [1]

Phathompat Boonyasaknanon

### Unión Geofísica Mexicana, A.C. (UGM) [1]

Jonas De Basabe

### Vietnam Association of Geophysicists (VAG) [1]

Bui Cong Que

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The number of Section representatives for each Section is listed in brackets. Section and Associated Society representatives listed above were representatives during the 1 August 2023 to 31 July 2024 Council year.

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## District Representatives

### DISTRICT 1

Shawn New 2024

Bryce Swinford 2025

### DISTRICT 2

Tracy Stark 2024

Neil Judge 2025

### DISTRICT 3

Sarah Gach 2024

Ge Jin 2025

### DISTRICT 4

Scott Gorham 2024

Shannon Jeffries 2025

### DISTRICT 5

Oliver Kuhn 2024

Craig Funk 2025

### DISTRICT 6

Luis Donoso 2024

Walter González 2025

### DISTRICT 7

Helene Hafslund 2024

Laura Bornatici 2025

### DISTRICT 8

Florian Bleibinhaus 2024

Barbara Ciurlo 2025

### DISTRICT 9

Joseph Ebeniro 2024

Ifeanyichukwu Obi 2025

### DISTRICT 10

Abdullatif Al-Shuhail 2024

Hakim Saibi 2025

### DISTRICT 11

Xuri Huang 2024

Xinming Wu 2025

### DISTRICT 12

James Shadlow 2024

Chisato Konishi 2025

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Terms of District Representatives end on 31 July of the year indicated. Each District is allotted two representatives.

## 2023–2024 Committee Rosters

### Advisory Committee

Anna Shaughnessy	Chair
Richard Miller	Member
Maurice Nessim	Member
Robert Stewart	Member
Ken Tubman	Member
Arthur C. H. Cheng	Board Liaison
James White	Staff Liaison
Mandi Duckworth	Alternate Staff Liaison

### AGU-SEG Collaboration Committee

Lianjie Huang	Co-chair
Anja Klotzsche	Co-Chair
Heather Bedle	Member
Kennedy Doro	Member
Felix Herrmann	Member
Xingguo Huang	Member
Joel Le Calvez	Member
Yongyi Li	Member
Yunyue Li	Member
David Lumley	Member
Alexander Martinez	Member
Qifei Niu	Member
Gordon Osterman	Member
Sina Saneiyani	Member
Martha Savage	Member
Chris Sherman	Member
Georgios Tsofilas	Member
Suzan van der Lee	Member
Huang Xingguo	Member
Rui Zhang	Member
Sanzong Zhang	Member
Tieyuan Zhu	Member
Dale Bird	Past Chair
Xavier Comas	Past Chair
John Lane	Past Chair
Kisa Mwakanyamale	Past Chair
Josh Sellars	Past Chair
Chi Zhang	Past Chair
Cathy Tuffert	Board Liaison
Laurie Whitesell	Staff Liaison

### Audit Committee

Ana Curcio	Chair
Lillian Flakes	Chair
Sandeep Chandola	Member
Lillian Flakes	Member
Xiaojun Huang	Board Liaison
Michael Mellen	Board Liaison
Carlos de la Garza	Staff Liaison

### Bylaws Committee

R. Kim Guyer	Chair
Zhishuai Zhang	Member
Constantine Tsingas	Board Liaison
Mandi Duckworth	Staff Liaison

### Committee For Passive Seismic

Daniel Hollis	Chair
Piero Basini	Vice Chair
Jonathan Ajo-Franklin	Member
David Eaton	Member
Lianjie Huang	Member
Joel Lecalvez	Member
Oscar Quezada	Member
David Diller	Past-Chair
Sergio Chávez-Pérez	Board Liaison
Annabella Betancourt	Staff Liaison

### Committee on Nominations

Ana Curcio	Chair
Sergio Chávez-Pérez	Vice Chair
Allen J. Bertagne	Member
Phathompat Boonyasaknanon	Member
Maurice Nessim	Member
Horst Rüter	Member
James Shadlow	Member
Anna Shaughnessy	Member
Ken Tubman	Member
Ana Curcio	Board Liaison
Mandi Duckworth	Staff Liaison

### Compensation Committee

Arthur C. H. Cheng	Chair
Shipeng Fu	Member
Michael Mellen	Member
Kenneth Tubman	Member
John Eastwood	Board Liaison
Carlos de la Garza	Staff Liaison

### Continuing Education Committee

K. John Fernando	Chair
Andrea Damasceno	Member
Mike Graul	Member
Osman Hassan	Member
Mahmoud Hedefa	Member
Dhananjay Kumar	Member
Shuki Ronen	Member
Michal Ruder	Member
Umair bin Waheed	Member
William Harbert	Past-Chair
Malcolm Lansley	Past-Chair
Sherif Hanafy	Board Liaison
John Meade	Staff Liaison

### Development and Production Committee

Samarjit Chakraborty	Chair
Lukumon Adeoti	Member
Abdulfattah Al-Dajani	Member
Othman Al-Mousa	Member
Kaushik Bandyopadhyay	Member
William Barkhouse	Member
Amy Borgmeyer	Member

## 2023–2024 Committee Rosters (continued)

Adam Bucki.....	Member	Saleh Al-Dossary.....	Member
Sam Buist.....	Member	David Alumbaugh.....	Member
Reynaldo Cardona.....	Member	Dimitri Bevc.....	Member
Mark Chapman.....	Member	Miguel Bosch.....	Member
Alan Cohen.....	Member	Guillaume Cambois.....	Member
Rocco Detomo.....	Member	John Ceron.....	Member
Scott Haberman.....	Member	Patricia De Lugao.....	Member
Francois Hindlet.....	Member	Adel Emam.....	Member
Ronny Hofmann.....	Member	Maitri Erwin.....	Member
David Johnston.....	Member	Lisa Gavin.....	Member
Asiya Kudarova.....	Member	Alison Malcolm.....	Member
Martin Landro.....	Member	Olga Nedorub.....	Member
Yongyi Li.....	Member	Vishal Pandey.....	Member
Shawn Maxwell.....	Member	Alexander Popovici.....	Member
Michael Mueller.....	Member	Matthijs Van Der Molen.....	Member
Shauna Oppert.....	Member	Nimisha Vedanti.....	Member
Amit Padhi.....	Member	Xinming Wu.....	Member
Marianne Rauch-Davies.....	Member	Arthur C. H. Cheng.....	Foundation Liaison
Jeffrey Roth.....	Member	Sergio Chávez-Pérez.....	Board Liaison
Andrew Royle.....	Member	John Meade.....	Staff Liaison
Douglas Schmitt.....	Member	Melissa Presson.....	Staff Liaison
Bruce Shang.....	Member	Annabella Betancourt.....	Alternate Staff Liaison
Zandong Sun.....	Member		
Nasar Tamimi.....	Member		
Maria Tatanova.....	Member		
Pierre Thore.....	Member		
Ali Tura.....	Member		
Jean-Paul Van Gestel.....	Member		
Eric VonLunen.....	Member		
Kanglin Wang.....	Member		
Ellen Xu.....	Member		
Yang Xue.....	Member		
Li Yong.....	Member		
Jianhua Yue.....	Member		
Jeremy Zimmerman.....	Member		
Mariana Gherasim.....	Past-Chair		
Martin Terrell.....	Past Chair		
Sergio Chávez-Pérez.....	Board Liaison		
Steve Brown.....	Staff Liaison		

### Distinguished Instructor Short Course [DISC]

Sergio Chávez-Pérez.....	Chair
Haibin Di.....	Member
William Harbert.....	Member
Ronny Hofmann.....	Member
Dhananjay Kumar.....	Member
Paresh Singha Roy.....	Member
Dileep Tiwary.....	Member
Simon Voisey.....	Member
Jingjing Zong.....	Member
Mauricio Sacchi.....	Board Liaison
Melissa Presson.....	Staff Liaison

### Distinguished Lecture Committee

Boris Gurevich.....	Chair
Aria Abubakar.....	Lecturer
John Etgen.....	Lecturer
Sergey Fomel.....	Lecturer

### Finance Committee

Peter Cramer.....	Chair
Olga Nedorub.....	Member
Erin Reuber.....	Member
Theodore Stieglitz.....	Member
Martin Stupel.....	Member
Timothy Watson.....	Member
Michael Mellen.....	Board Liaison
Carlos de la Garza.....	Staff Liaison

### Geoscientists *without* Borders (GWB) Committee

Robert Merrill.....	Chair
Bethany Burton.....	Member
Cengiz Esmersoy.....	Member
Catherine Truffert.....	Board Liaison
Pallavi Bharadwaj.....	Staff Liaison

### Gravity and Magnetism Committee

Alan Morgan.....	Chair
Luan Nguyen.....	Vice Chair
Tim Archer.....	Member
Andrea Balza.....	Member
Martin Bates.....	Member
Edward Biegert.....	Member
Dale Bird.....	Member
Neda Bundalo.....	Member
Charles Campbell.....	Member
Joe Capriotti.....	Member
Nicholas Direen.....	Member
Vsevolod Egorov.....	Member
Sergio Espinosa-Corriols.....	Member
Irina Filina.....	Member
Knut Fostad.....	Member
Simon Gozzard.....	Member
Jennifer Hare.....	Member

## 2023–2024 Committee Rosters (continued)

Earl Hensel .....	Member	Julian Chenin .....	Member
Alan Herring .....	Member	Paula de Oliveira .....	Member
Mohammed Kidwai .....	Member	Anne Draucker .....	Member
Yaoguo Li .....	Member	Maitri Erwin .....	Member
Xiong Li .....	Member	Matthew Fry .....	Member
Antony Price .....	Member	Nicole Gonzalez .....	Member
Marianne Rauch .....	Member	Howard Harper .....	Member
Dhananjay Ravat .....	Member	Camelia Knapp .....	Member
Michal Ruder .....	Member	Cucha Lopez .....	Member
Luise Sander .....	Member	Russell Miller .....	Member
Cara Schiek-Stewart .....	Member	Anine Pedersen .....	Member
Jijia Sun .....	Member	Charles Sternbach .....	Member
Victoria Tschirhart .....	Member	Caroline Wachtman .....	Member
Subba Rao Yalamanchili .....	Member	James White .....	Board Liaison
Mauricio Sacchi .....	Board Liaison	Tom Agnew .....	Staff Liaison
Steve Brown .....	Staff Liaison		

### Health, Safety, Security, and Environment (HSSE) Committee

Sharon Teebenny .....	Chair
Kevin Bohacs .....	Member
Tiffany Carey .....	Member
Luke Decker .....	Member
Francesca Fazzari .....	Member
Huw James .....	Member
Aileen Loftin .....	Member
Christy Nandlal .....	Member
Aniruddha Neogi .....	Member
Mary Oladiran .....	Member
Ahmed Rushdy .....	Member
Olga Nedorub .....	Board Liaison
John Meade .....	Staff Liaison

### Honors and Awards Committee

Robert Stewart .....	Chair
Richard Miller .....	Member
Maurice Nessim .....	Member
Anna Shaughnessy .....	Member
Kenneth Tubman .....	Member/Board Liaison
Mandi Duckworth .....	Staff Liaison

### IMAGE Oversight Committee

Ken Tubman .....	Chair
Bob Fryklund .....	Member
Charles Sternbach .....	Member
Jeffrey Shragge .....	Member
Joseph Reilly .....	Member
David Curtiss .....	AAPG Executive Director
James White .....	SEG Executive Director/Board Liaison
Alan Wegener .....	AAPG Staff Liaison
Tom Agnew .....	SEG Staff Liaison

### IMAGE Steering Committee

Lisa Helper .....	Co-Chair
Daniel Sutton .....	Co-Chair
Brian Horn .....	Technical Program Co-Chair
Wenyi Hu .....	Technical Program Co-Chair
Yingcai Zheng .....	Technical Program Vice Chair

### IMAGE Technical Program Committee

Brian Horn .....	Chair
Wenyi Hu .....	Chair
Yingcai Zheng .....	Co-Chair
Moses Adebayo .....	Member
Jeff Aldrich .....	Member
Tariq Alkhalifah .....	Member
Erkan Ay .....	Member
Esteban Fernandez Azparren .....	Member
Anatoly Baumstein .....	Member
Melissa Beaman .....	Member
Michael Behm .....	Member
Lauren Birgenheier .....	Member
David Blanchard .....	Member
Julie Bloxson .....	Member
Alexei Bolshakov .....	Member
Marc Bond .....	Member
Miguel Bosch .....	Member
Gokay Bozkurt .....	Member
Andrew Brenders .....	Member
Charles Campbell .....	Member
Maria Angela Capello .....	Member
Benjamin Cardenas .....	Member
Robert Chambers .....	Member
Sergio Chávez-Pérez .....	Member
Nizar Chemingui .....	Member
Ting Chen .....	Member
Jiefu Chen .....	Member
Ting Chen .....	Member
Xin Cheng .....	Member
Gary Citron .....	Member
Neala Creasy .....	Member
Ian Cross .....	Member
Chad Cummings .....	Member
Herman Darman .....	Member
Richard Denne .....	Member
Haibin Di .....	Member
Raffaele Di Cuia .....	Member
Mine Dogan .....	Member
Catherine Donohue .....	Member
Ashley Douds .....	Member
Christine Downs .....	Member



## 2023–2024 Committee Rosters (continued)

Ramesh Neelamani ..... Member  
Manika Prasad ..... Member  
Chi Zhang ..... Member  
Shipeng Fu ..... Foundation Liaison  
Lillian Flakes ..... Board Liaison  
Jennifer Cobb ..... Staff Liaison

### Machine Learning Committee

Allen J. Bertagne ..... Board Liaison  
Annabella Betancourt ..... Staff Liaison

### Meetings Review and Planning Committee

Alexander Martinez ..... Chair  
Mohammed Badri ..... Member  
Jesse Baker ..... Member  
Paul Cunningham ..... Member  
Rocco Detomo ..... Member  
Cengiz Esmersoy ..... Member  
Marianne Rauch ..... Member  
Feng Zhang ..... Member  
Carmen Dumitrescu ..... Past Chair  
Mauricio Sacchi ..... Board Liaison  
Debbie Mitchell ..... Staff Liaison

### Membership Committee

Aaron Girard ..... Chair  
Norimitsu Nakata ..... Vice Chair  
Anita Thapalia ..... Member  
Michel Verliac ..... Member  
Utkarsh Pratap Singh ..... Member  
Pamela Terekhova ..... Member  
Jing Ba ..... Member  
Zeyu Zhao ..... Member  
Donna Jurdy ..... Member  
Rocco Detomo ..... Member  
Teresa Santana ..... Member  
Alexey Stovas ..... Member  
Matthijs Van Der Molen ..... Member  
Pavlo Gryshchuk ..... Member  
Sindi Gumha ..... Member  
Joseph Ebeniro ..... Member  
Zhiguo Wang ..... Member  
Uzonna Anyiam ..... Member  
Alfred Liaw ..... Member  
Ana Curcio ..... Board Liaison  
Tania Stephens ..... Staff Liaison  
Jennifer Cobb ..... Alternate Staff Liaison

### Mining and Mineral Exploration Committee

Jiajia Sun ..... Chair  
Dan Hollis ..... Vice Chair  
Xiaolong Wei ..... Technical Lead  
Blake Cross ..... Member  
Ana Curcio ..... Member  
Ezzedeem Al Fataiergg ..... Member  
Craig Funk ..... Member  
Alan Jones ..... Member  
Seogi Kang ..... Member

Geneve Klepp ..... Member  
Sacha Knot-Bressow ..... Member  
Karen Kwok ..... Member  
Anais Lavoue ..... Member  
Keith Martin ..... Member  
Chris Nind ..... Member  
Alexandra Price ..... Member  
Jeffrey Shoffner ..... Member  
Richard Smith ..... Member  
Ken Witherly ..... Member  
Jose Arce ..... Past Chair  
Glenn Chubak ..... Past Chair  
Sarah Devriese ..... Past Chair  
Jean Legault ..... Past Chair  
Sean Walker ..... Past Chair  
Marianne Rauch Davies ..... Board Liaison  
Laurie Whitesell ..... Staff Liaison

### Publications Committee

Jeffrey Shragge ..... Chair  
Julie Aitken ..... Member  
Vsevolod Egorov ..... Member  
Wenyi Hu ..... Member  
Alison Malcolm ..... Member  
Umair Bin Waheed ..... Member  
Chester Weiss ..... Member  
Gang Yu ..... Member  
Kyle Spikes ..... Board Liaison  
Jennifer Cobb ..... Staff Liaison  
Jeno Mavzer ..... Alternate Staff Liaison

### Research Committee

Stephan Gelinsky ..... Chair  
Raymond Abma ..... Member  
William Abriel ..... Member  
Erkan Ay ..... Member  
Shuvajit Bhattacharya ..... Member  
Biondo Biondi ..... Member  
Ettore Biondi ..... Member  
Reetam Biswas ..... Member  
Miguel Bosch ..... Member  
Vanessa Brown ..... Member  
Binh Bui ..... Member  
Weiping Cao ..... Member  
Sergio Chávez-Pérez ..... Member  
Arthur C. H. Cheng ..... Member  
Xin Cheng ..... Member  
Yongchae Cho ..... Member  
Ana Curcio ..... Member  
Andrew Curtis ..... Member  
Haibin Di ..... Member  
Peter Eick ..... Member  
Cengiz Esmersoy ..... Member  
Ye Feng ..... Member  
Shihang Feng ..... Member  
Irina Filina ..... Member  
James Gaiser ..... Member  
Mariana Gherasim ..... Member

## 2023–2024 Committee Rosters (continued)

Aaron Girard ..... Member  
 Chen Gu ..... Member  
 William Harbert ..... Member  
 Felix Herrmann ..... Member  
 Wenyi Hu ..... Member  
 Lianjie Huang ..... Member  
 Matthias Imhof ..... Member  
 Robert Jacob ..... Member  
 Ge Jin ..... Member  
 Vladimir Kazei ..... Member  
 Joel Lecalvez ..... Member  
 Ariel Lellouch ..... Member  
 Bei Li ..... Member  
 Chengbo Li ..... Member  
 Yongyi Li ..... Member  
 Lin Liang ..... Member  
 Yong Ma ..... Member  
 Jinfeng Ma ..... Member  
 Joseph Ma ..... Member  
 Marie Macquet ..... Member  
 Reinaldo Michelena ..... Member  
 Dong-Joo Min ..... Member  
 Yanrui Ning ..... Member  
 Tobi Ore ..... Member  
 Josef Paffenholz ..... Member  
 Partha Routh ..... Member  
 Igor Rubio ..... Member  
 Oluseun Sanuade ..... Member  
 Xukai Shen ..... Member  
 Yi Shen ..... Member  
 Harpreet Singh ..... Member  
 Juan Soldo ..... Member  
 Frantisek Stanek ..... Member  
 Tracy Stark ..... Member  
 Christof Stork ..... Member  
 Kurt-Martin Strack ..... Member  
 Aleksei Titov ..... Member  
 Ilya Tsvankin ..... Member  
 Ali Tura ..... Member  
 Mirko van der Baan ..... Member  
 Nimisha Vedanti ..... Member  
 Michel Verliac ..... Member  
 Umair bin Waheed ..... Member  
 Ping Wang ..... Member  
 Chao Wang ..... Member  
 Bin Wang ..... Member  
 Arthur Weglein ..... Member  
 Zhouhong Wei ..... Member  
 Chester Weiss ..... Member  
 Xinming Wu ..... Member  
 Tu Xiaolei ..... Member  
 Jizhong Yang ..... Member  
 Hongyu Yu ..... Member  
 Zhigang Zhang ..... Member  
 Jingfeng Zhang ..... Member  
 Tao Zhao ..... Member  
 Xianhuai Zhu ..... Member  
 Hejun Zhu ..... Member

Jingjing Zong ..... Member  
 Aria Abubakar ..... Past-Chair  
 Sergio Chávez-Pérez ..... Board Liaison  
 Annabella Betancourt ..... Staff Liaison

### Reviews Committee

Julie Aitken ..... Chair  
 Raymond Wood ..... Advisor  
 Rodiat Amusan ..... Member  
 Robert Avakian ..... Member  
 David Bartel ..... Member  
 Dimitri Bevc ..... Member  
 Fred Boadu ..... Member  
 John Brittan ..... Member  
 Weiping Cao ..... Member  
 Sizhuang Deng ..... Member  
 Onyemachi Faith ..... Member  
 Suresh Gandikota ..... Member  
 Ranjana Ghosh ..... Member  
 Niels Grobbe ..... Member  
 Ahmed Hosny Hafez ..... Member  
 Junxiao Li ..... Member  
 Christopher Liner ..... Member  
 Wooil Moon ..... Member  
 Nabeel Muhammedy ..... Member  
 Sodiq Oguntade ..... Member  
 Andreas Rueger ..... Member  
 G. V. Suresh ..... Member  
 Patrick Taylor ..... Member  
 Olanrewaju Tolu ..... Member  
 Carlos Torres-Verdin ..... Member  
 Xiaolei Tu ..... Member  
 Adnan Hasyim Wibowo ..... Member  
 Iqbal Wijaya ..... Member  
 Aminu Ahmed Yuguda ..... Member  
 William Green ..... Past-Chair  
 Kyle Spikes ..... Board Liaison  
 Kelsy Taylor ..... Staff Liaison

### SEG Oil & Gas Reserves Committee

Daniel Maguire ..... Chair  
 Enzo Aconcha ..... Member  
 Laura Bandura ..... Member  
 Jean-Pierre Blangy ..... Member  
 John Downey ..... Member  
 Colton Dudley ..... Member  
 Tiffany Hedayati ..... Member  
 Mohammed Ibrahim ..... Member  
 Peter Lanzarone ..... Member  
 Andrew Royle ..... Member  
 Hector San Martin ..... Member  
 Chuandong Xu ..... Member  
 Olga Nedorub ..... Board Liaison  
 Annabella Betancourt ..... Staff Liaison

### SEG Women's Network Committee

Adriana Sola ..... Chair  
 Adriana Citladi Ramirez ..... Member

## 2023–2024 Committee Rosters (continued)

Ana Curcio.....	Member
Maria Beatriz de Santa Ana.....	Member
Loeiza Gicquel.....	Member
Roddys Gil.....	Member
Kasia Kramcyk.....	Member
Cucha Lopez.....	Member
Josefina Marmisolle.....	Member
Sofia Nemchenko.....	Member
Isabelle Pelletier.....	Member
Alessandra Simone.....	Member
Rodiat Amusan.....	Student Representative
Chinazaekpere Mary Arukwe.....	Student Representative
Hendratta Ali.....	Advisory Council/Past-Chair
Ellie Ardakani.....	Advisory Council/Past-Chair
Estella Atekwana.....	Advisory Council
Maria Angela Capello.....	Advisory Council/Past-Chair
Maitri Erwin.....	Advisory Council/Past-Chair
Nancy House.....	Advisory Council/Past-Chair
Cara Hunter.....	Advisory Council/Past-Chair
Elaine Mattos.....	Advisory Council/Past-Chair
Manika Prasad.....	Advisory Council
Teresa Santana.....	Advisory Council
Anna Shaughnessy.....	Advisory Council
Eve Sprunt.....	Advisory Council/Past-Chair
Sandeep Chandola.....	Board Liaison
Paola Vera.....	Staff Liaison

### Student and Early Career (SEC) Committee

Kurang Mehta.....	Chair
Peter Duncan.....	Challenge Bowl Subcommittee Chair
Nicole Gonzalez.....	EPIC Subcommittee Chair
Roddys Gil.....	EPIC Subcommittee Vice Chair
Francesca Fazzari.....	Field Camps Subcommittee Chair
Rosalynn Wang.....	Field Camps Subcommittee Vice Chair
Yong Ma.....	Scholarships Subcommittee Chair
William Hill.....	SEG EVOLVE Technical Subcommittee Chair
Sakshi Dahiya.....	Student Engagements Subcommittee Chair
Luigi Bianco.....	Student Engagements Subcommittee Vice Chair
Laxmi Pandey.....	Student Evaluations Subcommittee Chair
Uzonna Anyiam.....	Student Evaluations Subcommittee Vice Chair
Jose Arce.....	Student Evaluations Subcommittee Vice Chair Elect
Lillian Flakes.....	Board Liaison
Jessica Dostal.....	Staff Liaison
Annabella Betancourt.....	Alternate Staff Liaison

### Sustainability Committee

Maria Angela Capello.....	Chair
Daniella Bordon.....	Vice Chair
Linda Battalora.....	Member
Kate Robertson Brand.....	Member
Emer Caslin.....	Member
Ana Curcio.....	Member
Jeferson De Souza.....	Member
Sara Kellal.....	Member
Josef Paffenholz.....	Member
Munira Raji.....	Member
Eugenia Rojas.....	Member

Susan Webb.....	Member
Lillian Flakes.....	Board Liaison
Scott Sutherland.....	Staff Liaison

### Technical Standards

Shawn New.....	Chair
Joel Allard.....	Vice Chair
Nils Aatland.....	Member
Victor Ancira.....	Member
Victor Bruley.....	Member
Robert John (Bob) Firth.....	Member
Peter Green.....	Member
Rune Hagelund.....	Member
Stewart A. Levin.....	Member
Jill C. Lewis.....	Member
Neil Crane McNaughton.....	Member
Luo Minxue.....	Member
Friedrich Roth.....	Member
Pascal Vibert-Charbonnel.....	Member
Li Yanqing.....	Member
Bo Zhang.....	Member
Kyle Spikes.....	Board Liaison
Jeno Mavzer.....	Staff Liaison

### Translations Committee

Gang Yu.....	Chair
Lucia Torrado.....	Past-Chair
Michael Arvanitis.....	Member
Raul Cova.....	Member
Chaoshun Hu.....	Member
Wei Liu.....	Member
Reinaldo Michelena.....	Member
Gabriel Perez.....	Member
Edson Sampaio.....	Member
Ilya Tsvankin.....	Member
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## 2024 Calendar (event schedule is subject to change)

Date	Month	Event Name	Location
7–9	February	NAPE Summit Week	Houston, TX
12–14	February	International Petroleum Technology Conference (IPTC)	Dammam, Saudi Arabia
25–28	February	ASCE Geo-Congress 2024	Vancouver, British Columbia, Canada
27–1	February-March	Offshore Technology Conference Asia (OTC Asia)	Kuala Lumpur, Malaysia
7	March	Denver Geophysical Society's Annual 3D Seismic Symposium	Denver, CO
11–13	March	Carbon Capture, Utilization, and Storage (CCUS)	Houston, TX
19-21	March	Role of Geosciences in Carbon Storage	Mumbai, India
(Event Request Title: Application of Geophysical Techniques in CCUS and Clean Energy Transitions)			
24–28	March	36th Annual SAGEEP Symposium	Tucson AZ
27–29	March	SEG/SPE/SPWLA Workshop: From Measurements to Theory: Adventures in Rock Physics, Petrophysics, and Engineering. A Workshop Honoring the Contributions of Professor Carl H. Sondergeld	Norman, OK
9–10	April	8th Virtual Student Conference Europe	Virtual
23–24	April	Borehole Geophysics: New Developments for Global Energy	Kuala Lumpur, Malaysia
23–25	April	Next Generation Land & Shallow Water Acquisition Workshop	Muscat, Oman
30–2	April-May	Summit on Geophysical Detection of Explosive Remnants of War: Solving Current Challenges of Unexploded Ordnance (UXO) and Demining	Virtual
5-6	May	Offshore Technology Conference (OTC)	Houston, TX
14-16	May	The 48th IPA Convention & Exhibition	Jakarta, Indonesia
19–22	May	GEM 2024 Shenzhen: International Workshop on Gravity, Electrical, and Magnetic Methods and Their Applications	Shenzhen, China
21–22	May	Petroleum Reserves and Resources Forum <b>CANCELLED</b>	Houston, TX
21–23	May	Recent Advances in Geophysical Reservoir Characterization and Monitoring of CO <sub>2</sub> Sequestration in Carbonate Reservoirs (Event Request title: Timelapse Geophysics for Storage and Sequestration in Carbonates Workshop)	Abu Dhabi, UAE
22–23	May	Carbon Capture, Utilization, and Storage (CCUS) Brazil	Rio de Janeiro, Brazil
27–31	May	12th Congress of the Balkan Geophysical Society	Kopaonik, Serbia
3–5	June	SEG 1st Tarim Ultra-Deep Oil & Gas Exploration Technology Workshop	Korla, China
4–5	June	SPE/SEG Workshop: Injection Induced Seismicity	Fort Worth, TX
17–19	June	Unconventional Resources Technology Conference (URTeC)	Houston, TX
23–27	June	20th International Conference on Ground Penetrating Radar (GPR 2024)	Changchun, China
24–27	June	Net-Zero Emissions Workshop	Virtual
2–4	July	Advanced Geophysical Solutions for Complex Geological Settings	Kuala Lumpur, Malaysia
14–19	July	Geophysical Research for Gigatonnes CO <sub>2</sub> Storage	Golden, CO
21–23	July	2024 SEG Workshop on Fiber Optics Sensing for Energy Applications	Xi'an, China

## 2024 Calendar (event schedule is subject to change)

Date	Month	Event Name	Location
26–29	August	International Meeting for Applied Geoscience & Energy (IMAGE)	Houston, TX
11–13	September	SEG Workshop on Reservoir Geophysics	Qingdao, Shandong, China
1–4	October	SAGA 2024: 18th Biennial Conference & Exhibition	Windhoek, Namibia
6–8	October	SEG/SPWLA Symposium: Seismic Petrophysics	Al Khobar, Saudi Arabia
21–24	October	AAPG/EAGE/SEG: GEO 4.0 – Digitalization in Geosciences Symposium (Event Request Title: SEG/AAPG/EAGE: Digitalization and IR 4.0 Applications in Geosciences Symposium)	Al Khobar, Saudi Arabia
22–24	October	Advances in Quantitative Interpretation	Kuala Lumpur, Malaysia
28–30	October	Challenges and Advances in Velocity Model Building	Muscat, Oman
28–31	October	Summit on Drone Geophysics	Virtual
4–6	November	4D Forum – Insight to Actions: A global forum on creating value, reducing cycle time and optimizing production and injection in a digital world	Galveston, TX
11–13	November	Advancing Carbon Capture, Utilization, and Storage (CCUS): East Asia Perspective	Qingdao, Shandong Province, China
18–20	November	International Geomechanics Conference (IGS)	Kuala Lumpur, Malaysia
19–21	November	Deep Reservoir Imaging and Characterization	Al Khobar, Saudi Arabia
3–5	December	3rd SEG/EAGE Workshop on Geophysical Aspects of Smart Cities	Seoul, South Korea
10–12	December	Addressing the Challenges in Processing Data for Land and Shallow Water in the Middle East	Abu Dhabi, UAE

SECTION NINE:  
**Financials**



SOCIETY OF EXPLORATION  
— GEOPHYSICISTS —

**CONSOLIDATED FINANCIAL STATEMENTS**

**DECEMBER 31, 2024 and 2023**

**WITH**

**INDEPENDENT AUDITOR'S REPORT**



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## INDEPENDENT AUDITOR'S REPORT

To the Board of Directors  
Society of Exploration Geophysicists

### Qualified Opinion

We have audited the consolidated financial statements of Society of Exploration Geophysicists and its affiliates (the Society), which comprise the consolidated statements of financial position as of December 31, 2024 and 2023, the related consolidated statements of activities, functional expenses and cash flows for the years then ended, and the related notes to the consolidated financial statements (collectively, the financial statements).

In our opinion, except for the omission of the information described in the Basis for Qualified Opinion section of our report, the accompanying financial statements present fairly, in all material respects, the financial position of the Society as of December 31, 2024 and 2023, and the changes in their net assets and their cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

### Basis for Qualified Opinion

The Society is the sole corporate member of SEG Foundation (the Foundation) and as a result has a controlling financial interest in the Foundation. The Society does not include the accounts of the Foundation in these financial statements. Accounting principles generally accepted in the United States of America requires consolidation of an entity when the reporting entity has a controlling financial interest in that entity. If SEG Foundation were consolidated in these financial statements and intercompany accounts and transactions had been eliminated, assets, liabilities and net assets would increase by \$25,571,846, \$809, and \$25,571,037 respectively, as of December 31, 2024, and \$20,774,908, \$3,002, and \$20,771,906, respectively, as of December 31, 2023. Also, revenue, expenses and change in net assets would increase by \$5,015,052, \$215,591, and \$4,799,461, respectively, for the year ended December 31, 2024. Revenue, expenses and change in net assets would increase by \$1,769,084, \$179,411, and \$1,589,673, respectively, for the year ended December 31, 2023.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Society and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our qualified audit opinion.

### Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Society's ability to continue as a going concern within one year after the date that the financial statements are issued or available to be issued.

### **Auditor's Responsibilities for the Audit of the Financial Statements**

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit 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 Society's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Society's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.



Tulsa, Oklahoma  
June 27, 2025

**SOCIETY OF EXPLORATION GEOPHYSICISTS**  
**CONSOLIDATED STATEMENTS OF FINANCIAL POSITION**

**December 31, 2024 and 2023**

	2024	2023
<b>Assets</b>		
Current assets:		
Cash and cash equivalents	\$ 3,235,428	\$ 2,616,258
Accounts receivable, net	2,313,565	2,371,865
Accounts receivable, SEG Foundation	252,649	238,168
Inventories	123,745	93,185
Prepaid expenses	249,726	281,950
Total current assets	6,175,113	5,601,426
Investments	15,972,906	13,067,737
Property and equipment, net	470,845	676,517
Operating lease right-of-use asset, net	-	42,862
Right-of-use assets - finance lease, net	48,379	68,673
Other long-term assets	250,000	250,000
Total assets	<u>\$ 22,917,243</u>	<u>\$ 19,707,215</u>
<b>Liabilities and Net Assets</b>		
Current liabilities:		
Accounts payable and accrued liabilities	\$ 1,221,918	\$ 1,091,993
Current portion of deferred revenue	1,288,714	997,242
Current portion of operating lease obligations	-	42,862
Current portion of financing lease obligations	24,459	38,822
Liquidity access line	700,000	1,200,000
Total current liabilities	3,235,091	3,370,919
Deferred revenue, less current portion	607,133	789,810
Financing lease obligations, less current portion	26,099	49,638
Total liabilities	3,868,323	4,210,367
Net assets without donor restrictions	19,048,920	15,496,848
Total liabilities and net assets	<u>\$ 22,917,243</u>	<u>\$ 19,707,215</u>

**SOCIETY OF EXPLORATION GEOPHYSICISTS**  
**CONSOLIDATED STATEMENTS OF ACTIVITIES**

**Years ended December 31, 2024 and 2023**

	2024	2023
Revenues:		
Membership dues	\$ 749,720	\$ 754,800
Conferences and meetings	6,086,745	4,627,411
Publication sales and advertising	2,390,360	2,469,165
Professional development	355,554	305,071
Research and data	822,000	467,210
Foundation support for programs	1,126,883	1,246,665
Investment income	1,495,031	2,270,400
ERC Credit	1,057,702	-
	14,083,995	12,140,722
Total revenues		
Expenses:		
Program expenses:		
Community engagement	303,957	278,301
Meetings	291,041	19,609
Publications	2,119,858	2,231,698
Professional development	1,060,521	1,074,098
Students	635,921	740,638
Regional offices	1,734,127	1,185,613
Business development	1,051,971	1,308,293
Research and data	383,485	460,851
	7,580,881	7,299,101
Total program expenses		
Supporting services	2,951,042	2,845,191
	10,531,923	10,144,292
Total expenses		
Change in net assets	3,552,072	1,996,430
Net assets, beginning of year	15,496,848	13,500,418
Net assets, end of year	\$ 19,048,920	\$ 15,496,848

**SOCIETY OF EXPLORATION GEOPHYSICISTS**  
**CONSOLIDATED STATEMENT OF FUNCTIONAL EXPENSES**

**Year ended December 31, 2024**

	Program Expenses							Total		
	Community Engagement	Meetings	Publications	Professional Development	Students	Regional Offices	Business Development		Research and Data	Supporting Services
Staffing	\$ 196,997	\$ (155,534)	\$ 1,069,878	\$ 567,785	\$ 136,164	\$ 648,852	\$ 759,627	\$ 204,488	\$ 1,984,384	\$ 5,412,641
Travel	15,767	22,742	9,052	37,316	1,669	204,129	44,929	2,150	91,090	428,844
Office	19,482	80,992	244,271	59,974	27,571	140,604	40,251	14,275	293,780	921,200
Program awards	-	1,359	-	201,490	455,099	-	4,200	-	-	662,148
Production	396	-	487,466	-	-	375	347	-	-	488,584
Postage	628	3,322	80,306	76	10	212	284	-	1,464	86,302
Commissions, honorariums and royalties	-	-	30,069	80,781	-	1,950	12,397	-	-	125,197
Cost of sales	-	-	16,893	-	-	-	-	-	-	16,893
Events	1,536	244,780	15,931	17,101	-	656,506	46,768	54,105	46,410	1,083,137
Promotion costs and other										
committee expenses	13,173	16,849	958	4,133	-	27,643	-	973	16,369	80,098
Outside services	47,044	38,282	92,874	67,144	4,363	48,674	95,389	98,726	424,316	916,812
Other	-	182	-	-	-	4,881	3,018	1,916	51,714	61,711
Taxes	-	-	1,260	-	-	-	11,202	-	9,713	22,175
Depreciation and amortization	8,934	38,067	70,900	24,721	11,045	301	33,559	6,852	31,802	226,181
<b>Total</b>	<b>\$ 303,957</b>	<b>\$ 291,041</b>	<b>\$ 2,119,858</b>	<b>\$ 1,060,521</b>	<b>\$ 635,921</b>	<b>\$ 1,734,127</b>	<b>\$ 1,051,971</b>	<b>\$ 383,485</b>	<b>\$ 2,951,042</b>	<b>\$ 10,531,923</b>

**SOCIETY OF EXPLORATION GEOPHYSICISTS**  
**CONSOLIDATED STATEMENT OF FUNCTIONAL EXPENSES**

Year ended December 31, 2023

	Program Expenses								Total	
	Community Engagement	Meetings	Publications	Professional Development	Students	Regional Offices	Business Development and Data	Research and Data		Supporting Services
Staffing	\$ 184,137	\$ (167,061)	\$ 1,166,406	\$ 442,800	\$ 121,244	\$ 489,448	\$ 942,508	\$ 167,116	\$ 1,437,119	\$ 4,783,717
Travel	10,604	17,357	11,935	96,443	2,788	143,190	32,543	1,297	90,946	407,103
Office	22,729	86,638	255,372	80,293	33,256	128,351	84,151	97	373,122	1,064,009
Program awards	-	-	-	252,931	522,345	-	20,628	-	-	795,904
Production	-	786	482,887	544	-	141	-	-	-	484,358
Postage	5,355	1,613	90,840	-	-	511	270	-	1,278	99,867
Commissions, honorariums and royalties	-	-	40,499	106,252	-	6,284	-	-	-	153,035
Cost of sales	-	-	8,789	459	-	-	-	-	-	9,248
Events	-	23,239	16,828	9,165	46,871	344,988	71,685	49,916	83,826	646,518
Promotion costs and other	-	-	-	-	-	-	-	-	-	-
committee expenses	7,495	12,125	2,382	3,150	792	27,637	618	224	42,298	96,721
Outside services	41,048	15,566	102,227	63,859	4,615	40,161	118,882	244,400	670,174	1,300,932
Other	-	-	-	-	-	4,902	6,693	(2,199)	64,142	73,538
Taxes	-	-	-	42	-	-	8,017	-	24,521	32,580
Depreciation and amortization	6,933	29,346	53,533	18,160	8,727	-	22,298	-	57,765	196,762
<b>Total</b>	<b>\$ 278,301</b>	<b>\$ 19,609</b>	<b>\$ 2,231,698</b>	<b>\$ 1,074,098</b>	<b>\$ 740,638</b>	<b>\$ 1,185,613</b>	<b>\$ 1,308,293</b>	<b>\$ 460,851</b>	<b>\$ 2,845,191</b>	<b>\$ 10,144,292</b>

**SOCIETY OF EXPLORATION GEOPHYSICISTS**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**

**Years ended December 31, 2024 and 2023**

	2024	2023
<b>Cash Flows from Operating Activities</b>		
Change in net assets	\$ 3,552,072	\$ 1,996,430
Adjustments to reconcile change in net assets to net cash provided by (used in) operating activities:		
Depreciation and amortization	226,181	196,762
Net realized/unrealized gain on investments	(1,146,752)	(2,020,944)
Change in operating assets and liabilities:		
Accounts receivable, net	58,300	(1,314,908)
Accounts receivable, SEG Foundation	(14,481)	235,622
Inventories	(30,560)	(2,449)
Prepaid expenses	32,224	112,361
Accounts payable and accrued liabilities	129,925	(787,163)
Deferred revenue	108,795	111,259
Net cash provided by (used in) operating activities	2,915,704	(1,473,030)
<b>Cash Flows from Investing Activities</b>		
Purchases of property and equipment	-	(478,512)
Purchases of investments	(8,589,662)	(1,866,833)
Proceeds from sale of investments	6,831,245	3,080,459
Net cash provided by (used in) investing activities	(1,758,417)	735,114
<b>Cash Flow from Financing Activities</b>		
Payments on finance lease obligations	(38,117)	(79,269)
Net proceeds (repayments) on liquidity access line	(500,000)	1,200,000
Net cash provided by (used in) financing activities	(538,117)	1,120,731
Net change in cash	619,170	382,815
Cash and cash equivalents, beginning of year	2,616,258	2,233,443
Cash and cash equivalents, end of year	\$ 3,235,428	\$ 2,616,258
<b>Supplemental Cash Flow Disclosures</b>		
Interest paid	\$ 58,346	\$ 36,240

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 2024 and 2023

### Note 1 – Summary of Significant Accounting Policies

#### Nature of organization

The Society of Exploration Geophysicists (the Society or SEG), was organized in 1930 as a not-for-profit organization. The objectives of the Society are to promote the science and common scientific interests of geophysicists, and to maintain a high professional standing among its members. The Society accomplishes these objectives by publishing scientific literature, conducting professional development and student programs, hosting technical meetings and conferences, and providing other informational services.

The Society maintains offices in the United States, United Arab Emirates, Kuala Lumpur and China. The corporate headquarters are in Houston, Texas.

#### Basis of presentation

The consolidated financial statements include the accounts of the Society and its subsidiaries, SEG Advanced Modeling Corporation (SEAM) and SEG Global, Inc (China). All material intercompany balances and transactions have been eliminated in consolidation.

These consolidated financial statements do not include the SEG Foundation (the Foundation), an affiliated not-for-profit organization governed by a separate board of directors. The Foundation receives contributions to support scientific, educational, and charitable activities to benefit geophysicists and their professional community. The Society is the sole corporate member of the Foundation.

#### Cash and cash equivalents

Cash and cash equivalents include cash in banks and all highly liquid investments with an original maturity of three months or less. Accounts at each institution are insured by the Federal Deposit Insurance Corporation up to \$250,000. Typically, cash exceeds federally insured limits, but management believes any possible risk of loss is minimal.

#### Accounts receivable

Accounts receivable largely consists of uncollateralized billings for exhibit space, research completed and in progress, the Society's share of revenues related to collaborative conferences, advertising and page charges. Accounts receivable are stated at the amount billed, less an allowance for expected credit losses.

The allowance for expected credit losses is based on management's estimate of the amount of receivables that will not be collected. Collectibility is assessed by reviewing contract assets and accounts receivable on a collective basis where similar characteristics exist and on an individual basis when specific customers are identified with known issues or collectibility issues. In determining the amount of the allowance for credit losses, the Society considers historical collectibility based on past due status, customer-specific information, market conditions, and reasonable and supportable forecasts of future economic conditions to inform adjustments to historical loss data. While management believes the Society's processes effectively

identify the amount of possible credit losses in the Society's existing accounts and contracts receivable, changes in circumstances may result in a requirement for additional provisions in the future. Unpaid amounts that remain after management has pursued reasonable collection efforts are written off through a charge to the allowance for expected credit losses and a credit to accounts receivable. Interest is not charged on outstanding balances. At December 31, 2024 and 2023, management estimates that the allowance for credit losses of \$49,791, is adequate to absorb losses arising from nonpayment.

### Inventories

Inventories of publications for resale are valued at the lower of cost, determined by the average method, or net realizable value.

### Investments

Investments in marketable securities are carried at estimated fair value as reported by the asset custodians. See Note 3 for description of the fair value inputs and methodologies utilized. Unrealized gains and losses are included in the statement of activities.

### Property and equipment

The Society capitalizes all expenditures for property and equipment in excess of \$1,000. Property and equipment are carried at cost. Depreciation is computed using the straight-line method based on the estimated useful lives of the assets. When assets are retired or otherwise disposed of, the cost and related accumulated depreciation are removed from the accounts, and any resulting gain or loss is included in the statement of activities. Expenditure for maintenance and repairs are charged to expense as incurred. Major improvements are capitalized. The lives used in computing depreciation for software, tenant improvements, furniture and equipment range from three to five years.

The Society reviews the carrying value of property and equipment for impairment whenever events and circumstances indicate that the carrying values of long-lived assets may not be recoverable from the future cash flows expected to result from their use and ultimate disposition. In cases where the undiscounted expected future cash flows are less than the carrying values, an impairment loss is recognized equal to the amount by which the carrying value exceeds the fair value of each asset. The factors considered by the Society in performing an impairment assessment include current operating results, trends and prospects, and the effects of obsolescence, demand, competition, and other economic factors. Based on these criteria, there was no impairment for the years ended December 31, 2024 and 2023.

### Liquidity access line

The Society utilizes a liquidity access line to bridge the timing of cash flows or short-term budget shortfalls.

### Net assets

Net assets are classified based on the existence or absence of donor-imposed restrictions. Descriptions of the two net asset categories and the types of transactions included in each category are as follows:

*Without donor restrictions* – Net assets without donor restrictions represent those resources that are not restricted by donors.

*With donor restrictions* – Net assets with donor restrictions reflect donor-imposed restrictions that require the Society to utilize or expend the related assets as specified. The Society does not have any net assets with donor restrictions at December 31, 2024 or 2023.

## Leases

Leases are capitalized on the Society's statement of financial position through recognition of a liability for the discounted present value of future fixed lease payments and a corresponding right-of-use (ROU) asset. The ROU asset recorded at commencement of the lease represents the right to use the underlying asset over the lease term in exchange for the lease payments. When readily determinable, the Society uses the interest rate implicit in a lease to determine the present value of future lease payments. For leases where the implicit rate is not readily determinable, the risk-free treasury rate is utilized. The Society's lease agreements do not contain any residual value guarantees or restrictive covenants. The Society combines lease and nonlease components to determine lease payments for all leases.

Short-term leases which have an initial term of 12 months or less and do not have an option to purchase the underlying asset that is deemed reasonably certain to be exercised are not recorded on the statement of financial position. Rent expense for these short-term leases is recognized on a straight-line basis over the lease term, or when incurred if a month-to-month lease.

For finance leases, lease expenses are the sum of interest on the lease obligations and amortization of the ROU assets. Finance lease ROU assets are amortized based on the lesser of the lease term and the useful life of the leased asset according to the capital asset accounting policy. If ownership of the ROU assets transfers to the Society at the end of the lease term or if the Society is reasonably certain to exercise a purchase option, amortization is calculated using the estimated useful life of the leased asset.

For operating leases, the expenses are generally recognized on a straight-line basis over the lease term. The Society recognizes variable lease payments as expenses when incurred.

## Contracts with customers

The Society follows Accounting Standards Codification (ASC), *Revenue from Contracts with Customers* (ASC 606) for all revenue forms other than contributions or investment income. In determining the appropriate amount of revenue to recognize, the Society applies the following five-step model: (1) identify contracts with customers, (2) identify the performance obligations in the contract, (3) determine the transaction price, (4) allocate the transaction price to the performance obligations, and (5) recognize revenue as each performance obligation is completed. The Society accounts for a contract with a customer when it has approval, the contract is committed, the rights of the parties, including payment terms, are identified, the contract has commercial substance and consideration is probable of collection.

*Contracts with customers* – A contract exists when services to be performed and products ordered are specified in a submitted and accepted membership application, written contract, purchase order or similar instrument.

*Performance obligations* – The Society's contracts may have a single or multiple performance obligation(s). For contracts with multiple performance obligations, the Society allocates the contract transaction price to each performance obligation using the estimated standalone selling price of each distinct good or service in the contract, generally equal to the prices specified in the contract. Membership terms include many benefits and discounts available to the member. The Society treats these as a single performance obligation, the availability of the benefits, resources and discounts, as the customer may not utilize all benefits and value is created to the member for the integration of these benefits. There is not a contribution component of the membership dues.

For membership dues and online publications, revenue is recognized ratably over the membership or subscription term as the customer receives and consumes the benefits. Revenue from each print publication is recognized in the month they are mailed to subscribers. Revenue from conferences, meetings and other events is recognized when the event is held, and services are rendered. Generally,

advertising revenue is recognized when the advertisement is delivered, either in publication or its display at an event. Research and data revenue is recognized upon completion of the project and the beginning of the customer's exclusivity period.

Payment terms for memberships and subscriptions are due when the contract is initiated. Payment terms for conferences, meetings and other events vary based on stated contract terms, but typically require an upfront deposit upon registration for the event and the remainder due shortly before the event occurs.

Payment terms for research and data projects require payments according to contract milestones. These payment terms do not approximate timing of revenue recognition. Contracts typically do not contain variable consideration, any consideration payable to the customer or any significant financing components.

*Contract modifications* – The Society considers contract modifications to exist when the modifications either create new or changes the existing enforceable rights and obligations. Most contract modifications are for goods or services that are not distinct from the existing performance obligation(s). The effect of a contract modification on the transaction price is recognized as an adjustment to revenue on a cumulative catch-up basis.

The Society has adopted the following practical expedients and accounting policy elections:

*Incremental costs of obtaining a contract* – These costs are included in supporting services expense as incurred when the amortization period is generally one year or less.

*Shipping activities* – The Society has elected to treat shipping and fulfillment activities as fulfillment costs rather than a separate performance obligation. As a result, any consideration received related to these activities will be included as a component of the overall transaction consideration and allocated to the performance obligations of the contract.

*Sales tax and other related taxes* – Sales and other tax amounts collected from customers for remittance to governmental authorities are excluded from revenue.

#### Foundation support for programs

The Society recognizes foundation support revenue from the Foundation as it incurs expenses that the Foundation has agreed to reimburse.

#### Functional expenses

The costs of providing various programs and supporting activities have been summarized on a functional basis in the consolidated statements of activities. The consolidated statements of functional expenses present expenses by function and natural classification. Expenses directly attributable to a specific functional area of the Society are reported as expenses of those functional areas while indirect costs, include salaries and benefits, that benefit multiple functional areas have been allocated among the various functions based on estimated cost attributable to each function.

#### Income taxes

The Society is exempt from federal income taxes under Section 501(c)(6) of the Internal Revenue Code. Income from its consolidated for-profit subsidiary is subject to income tax. Advertising income, not directly related to the Society's tax-exempt purpose, is subject to taxation as unrelated business income. The Society did not incur any tax expenses associated with unrelated business income for the years ended December 31, 2024 or 2023.

Use of estimates

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

**Note 2 – Financial Assets and Liquidity Resources**

The Society's financial assets available for general expenditures within one year of the December 31, statements of financial position are as follows:

	2024	2023
Assets:		
Cash and cash equivalents	\$ 3,235,428	\$ 2,616,258
Accounts receivable, net	2,313,565	2,371,865
Accounts receivable, SEG Foundation	252,649	238,168
Investments	15,972,906	13,067,737
	<hr/>	<hr/>
Total financial assets available to management for general expenditures within one year	<u>\$ 21,774,548</u>	<u>\$ 18,294,028</u>

The Society maintains a policy of structuring its financial assets to be available as its general expenditures, liabilities and other obligations come due. The intent is for investments not to fall below the trailing three-year average of operating expenses. Additionally, the Society has a liquidity access line available, as discussed in Note 6.

**Note 3 – Investments**Fair value measurements

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Accounting standards provide a consistent framework for measuring fair value and a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to measurements involving significant unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy are as follows:

- Level 1 – Quoted prices in active markets for identical securities
- Level 2 – Other significant observable inputs (including quoted prices for similar securities)
- Level 3 – Significant unobservable inputs

The level in the fair value hierarchy within which a fair measurement in its entirety is based on the lowest level input that is significant to the fair value measurement in its entirety. There were no investment transfers due to changes in the observability of significant inputs between Level 1, Level 2 and Level 3 assets during the years ended December 31, 2024 or 2023.

Investments measured at fair value on a recurring basis consisted of the following:

	Fair Value of Measurements as of December 31, 2024			
	Level 1	Level 2	Level 3	Total
Money market	\$ 28,286	\$ -	\$ -	\$ 28,286
Mutual funds	2,205,053	-	-	2,205,053
Equity securities	9,918,927	-	-	9,918,927
Fixed income	-	1,477,942	-	1,477,942
Government and agency securities	773,781	1,568,917	-	2,342,698
<b>Total investments at fair value</b>	<b>\$ 12,926,047</b>	<b>\$ 3,046,859</b>	<b>\$ -</b>	<b>\$ 15,972,906</b>

	Fair Value of Measurements as of December 31, 2023			
	Level 1	Level 2	Level 3	Total
Mutual funds	\$ 2,518,719	\$ -	\$ -	\$ 2,518,719
Equity securities	7,133,245	-	-	7,133,245
Fixed income	-	1,487,746	-	1,487,746
Government and agency securities	862,850	1,065,177	-	1,928,027
<b>Total investments at fair value</b>	<b>\$ 10,514,814</b>	<b>\$ 2,552,923</b>	<b>\$ -</b>	<b>\$ 13,067,737</b>

Investment income consists of the following for the years ended December 31:

	2024	2023
Interest and dividend income	\$ 407,490	\$ 378,104
Realized/unrealized gain on investments	1,146,752	2,020,944
Investment fees	(59,211)	(128,648)
	<b>\$ 1,495,031</b>	<b>\$ 2,270,400</b>

#### Note 4 – Property and Equipment

Property and equipment consist of the following at December 31:

	2024	2023
Building and leasehold improvements	\$ 21,772	\$ 21,772
Application development	1,328,179	1,328,179
Furniture, fixtures and equipment	375,517	375,517
	1,725,468	1,725,468
Less accumulated depreciation and amortization	(1,254,623)	(1,048,951)
<b>Property and equipment, net</b>	<b>\$ 470,845</b>	<b>\$ 676,517</b>

**Note 5 – Deferred Revenue**

Deferred revenue consists of the following at December 31:

	2024	2023
Dues	\$ 498,452	\$ 355,881
Subscriptions	346,067	407,662
Meetings	444,195	234,376
Research and data projects	607,133	789,133
	<u>\$ 1,895,847</u>	<u>\$ 1,787,052</u>

**Note 6 – Liquidity Access Line**

The Society has a revolving liquidity access line with a bank dated July 31, 2024. The line has a variable interest rate of .850 percentage points over the SOFR Average Index (5.182% at December 31, 2024) and is secured by securities and cash held by the bank. The line establishes borrowings up to \$5,000,000 and will mature on July 31, 2025. As of December 31, 2024 and 2023, \$700,000 and \$1,200,000, respectively, was borrowed.

**Note 7 – Related Party Transactions**

The Foundation supports the Society with contributions, and the Society provides services to the Foundation, some of which are reimbursed by the Foundation. Those transactions for the years ended December 31, are as follows:

	2024	2023
Foundation support for the program activities	\$ 1,126,883	\$ 1,246,665
Reimbursement from the Foundation for direct fundraising and administrative services	340,996	329,094
Reimbursement from the Foundation for indirect administrative services	204,757	150,954
	<u>\$ 1,672,636</u>	<u>\$ 1,726,713</u>

**Note 8 – Retirement Plan**

The Society sponsors a defined contribution plan. The plan is nondiscriminatory and covers all SEG employees who are foreign nationals or legal residents of the United States and have attained the age of 21. The Society's contributions to this plan are computed based on a safe-harbor nonelective 3% of salaries and a one-for-one safe-harbor matching contribution of employees' contributions, up to a maximum of 3% of salaries. In addition, a discretionary profit-sharing contribution can be made after reaching the end of the plan year. The discretionary contribution, if any, will be determined from year to year.

For the years ended December 31, 2024 and 2023, the Society's expense for the safe-harbor match and safe-harbor nonelective contributions was \$226,542 and \$217,295, respectively. The Society did not make discretionary contributions to the plan in 2024 or 2023.

## Note 9 – Leases

### Operating leases

The Society leases office facilities under a short-term, noncancelable operating lease agreement. The terms for this lease include a renewal option that the Society is not reasonably certain to exercise and excluded from the remaining lease term of 8 months. The Society has variable lease payments for common area maintenance costs and property taxes on operating leases.

### Finance leases

The Society leases office facilities, company laptops and a copier for various terms under long-term, noncancelable finance lease agreements. The terms for certain of these leases include renewal options that the Society is not reasonably certain to exercise and excluded from the lease terms ranging from one to four years.

### Short-term leases

Short-term leases consist of office equipment and office space that are for terms of 12 months or less. Short-term lease costs for the year ended December 31, 2024 do not reflect the lessee's short-term lease commitments for the ensuing year. The Society's short-term lease commitments for 2024 are \$65,044.

The following tables summarize lease costs and other information for the years ended December 31:

	2024	2023
Lease cost:		
Finance lease cost:		
Amortization of right-of-use assets	\$ 18,348	\$ 66,749
Interest on lease liabilities	211	2,231
Operating lease cost	42,946	79,758
Total lease cost	<u>\$ 61,505</u>	<u>\$ 148,738</u>
	2024	2023
Other information:		
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash outflows from operating leases	\$ 42,946	\$ 79,758
Financing cash outflows from finance leases	38,822	26,939
Right-of-use assets obtained in exchange for new finance lease liabilities	-	157,568
Adoption of ASC 842 - Operating leases	-	194,743
Weighted-average remaining lease term - finance leases	1.6 years	2.6 years
Weighted-average remaining lease term - operating leases	-	0.83 years
Weighted-average discount rate - finance leases	1.57%	1.57%
Weighted-average discount rate - operating leases	-	0.59%

Minimum future lease commitments under noncancelable leases in effect at December 31, 2024, including those with related parties, were as follows:

	<u>Finance</u>
2025	\$ 24,459
2026	20,263
2027	<u>6,764</u>
Total minimum lease payment	51,486
Less imputed interest	<u>(928)</u>
Total lease liabilities	<u><u>\$ 50,558</u></u>

Rental expense incurred under the leases for the years ended December 31, 2024 and 2023, was approximately \$224,660 and \$296,000, respectively.

#### **Note 10 – Concentrations**

A significant portion of the Society's customers are companies and professionals in the oil and gas industry both within the United States and internationally.

The Society has significant investments in equity and debt securities and is therefore subject to concentrations of credit risk. Investment advisors who are supervised by the Finance Committee manage investments. Market value of investments is subject to fluctuations on a year-to-year basis; however, the Finance Committee believes the investment policy is prudent for the long-term welfare of the Society.

#### **Note 11 – Subsequent Events**

Management has evaluated subsequent events through June 27, 2025, the date the financial statements were available to be issued.

In 2025, the federal government cut or eliminated a number of government grants and subsidies. Many of the organizations that attend the Society's events or purchase materials are impacted by the changes. Additionally, as of May 2025, the federal government has implemented several significant changes to U.S. visa and immigration policies, which may adversely impact attendance and sponsorships at events. The ultimate impact of the federal government's cuts and changes to the Society's financial results and operations cannot be determined at this time.