Committee on Earth Resources

Committee

David B. Spears

Chair

David B. Spears received a B.S. in geology from Lafayette College in 1981 and an M.S. in geology from Virginia Tech in 1983. He began his professional career on the Gulf Coast as a petroleum geologist for Chevron USA, where he worked from 1983 to 1991. In 1993, David began working for Virginia's Department of Mines, Minerals and Energy, serving as senior geologist, economic geology manager, and policy analyst. His work involved resource analysis of coal, natural gas, and gold deposits as well as policy development for several Virginia governors on offshore drilling, shale gas, geologic hazards, and mining. David became State Geologist of Virginia in 2009 and served in that role until his retirement in 2022. He is a Fellow of the Geological Society of America, a member of the American Association of Petroleum Geologists, and is a past president of the Association of American State Geologists. David served as a member of the Committee on Earth Resources of the National Academies of Sciences, Engineering, and Medicine from 2015 to 2021. He has been a certified professional geologist since 2002.

Erin A. Campbell

Member

Erin Campbell was appointed as the Alaska State Geologist in August of 2025, where she directs the Alaska Division of Geological & Geophysical Surveys. The Alaska Geological and Geophysical Survey is focused on improving the lives of Alaskans through studies of geologic hazards and energy and mineral resources. She is serving on a subcommittee for the National Petroleum Council. She worked as a geologist for Chevron in Louisiana and California before returning to Wyoming to teach at the University of Wyoming. Prior to this position, she was the Wyoming State Geologist from 2017 to 2025 and led the Wyoming State Geological Survey. Dr. Campbell has a bachelor's degree in geology from Occidental College and a Ph.D. in geology from the University of Wyoming specializing in structural geology.

Harry M. Conger, IV

Member

Harry “Red” Conger retired in 2024 after 47 years in the mining industry and now serves on the Board of Directors for Newmont. He previously served as President, Chief Operating Officer (COO), and Director of Teck Resources Ltd. from 2020 to 2023 and President and COO of Americas for Freeport-McMoRan from 2015 to 2020. Throughout his career, he has been recognized for his leadership in safety and is considered a leader in change management and production efficiency. Conger served as chairman of the National Mining Association 2014-2015, where he has been a member of the Executive Committee since 2007. He was elected to the National Academy of Engineering in 2019 and has received multiple awards for his efforts in safety and leadership, including the Ankh Award by the Copper Club and the Charles F. Rand Memorial Gold Medal. He has also received multiple awards in academia, including being selected as the William N. Poundstone Lecturer by the Benjamin M. Statler College of
Engineering and Mineral Resources at West Virginia University, the Daniel C. Jackling Award, and the Colorado School of Mines Distinguished Achievement Medal. He additionally has served as the Commissioner on the New Mexico mining commission and served on an Arizona water review commission. Conger received a B.S. in mining engineering from Colorado School of Mines. He has completed post-graduate executive management studies at Duke University Fuqua School of Business, and Whitmore School of Business and Economics at the University of New Hampshire.

Elizabeth A. Gleason Holley

Member

Elizabeth Holley is an Associate Professor of mineral exploration and mining geology at Colorado School of Mines, where she studies the processes responsible for ore deposit genesis, as well as the geologic characteristics that determine how ore bodies are developed, mined, and reclaimed. Her interdisciplinary work examines the intersections between technical and social risks in mining. She is a fellow of the Payne Institute for Public Policy at Colorado School of Mines, as well as the Site Director for a mining and mineral exploration-focused National Science Foundation Industry-University Collaborative Research Center. Dr. Holley is a National Science Foundation Career Awardee, as well as the lead investigator for a National Science Foundation Growing Convergence Research project on responsible approaches to critical mineral supply. Her Mining Geology Research Group has been supported by federal agencies, private foundations, and the mining industry. Dr. Holley has worked in the industry on five continents. She is also a fellow of the Society of Economic Geologists and served as the society’s 2022 Distinguished Lecturer. Dr. Holley received a B.A. in geology from Pomona College, an M.Sc. in geochemistry from the University of Otago, New Zealand, and a Ph.D. in geology from Colorado School Mines. She previously served on the National Academy committee on the Potential Impacts of Gold Mining in Virginia.

Stephanie B. Grocke

Member

Stephanie Grocke is president of Global Geologica, USA, an international geological consulting firm that provides services to exploration and mining companies. She has been a technical consultant to the exploration industry since 2017, where she has worked on projects across the globe, with specific focus on the United States, Canada, and Australia. Her expertise has been applied to various deposit styles and commodities including precious and base metals as well as critical minerals. Her passion is identifying new potential deposits by collating data from the public domain with data from private databases to develop 3D models that elucidate new potential for economic mineral resources. Grocke is an active member of the Geological Society of Nevada, the Society of Economic Geologists, and the American Exploration and Mining Association, and is a registered Professional Geoscientist (P.Geo.) by the Association of Engineers and Geoscientists of the province of British Columbia, Canada. Grocke received a Ph.D. in geology from Oregon State University and was a postdoctoral fellow at the Smithsonian National Museum of Natural History, a Fulbright Scholar, and a National Geographic Explorer. She previously served on the National Academies' Committee on Optimizing the USGS Mineral Resources Program Science Portfolio.

Alexandra B. Klass

Member

Alexandra B. Klass is the James G. Degnan Professor of Law at the University of Michigan Law School. She teaches and writes in the areas of energy law, environmental law, natural resources law, tort law, and property law. In 2022 and 2023, she served as deputy general counsel for energy efficiency and clean energy demonstrations at the U.S. Department of Energy. Before joining the Michigan Law faculty in 2022, Professor Klass was a Distinguished McKnight University Professor at the University of Minnesota Law School, where she was a member of the faculty from 2006 to 2022. She has been a visiting professor at Harvard Law School, Uppsala University (Sweden), and the University of Arizona Rogers College of Law. Prior to her academic career, Professor Klass was a partner at Dorsey & Whitney LLP in Minneapolis, where she specialized in environmental law and land use litigation. Professor Klass's recent scholarly work, published in many of the nation's leading law journals, addresses regulatory and permitting challenges to integrating more renewable energy into the nation's electric transmission grid, siting and eminent domain issues surrounding interstate electric transmission lines and oil and gas pipelines, and applications of the public trust doctrine to modern environmental law challenges. Professor Klass received a B.A. from the University of Michigan and a J.D. from the University of Wisconsin-Madison.

Ryan Mathur

Member

Ryan Mathur is a professor and chair of geology at Juniata College. He has worked on a large variety of ore deposits on five continents with the focus of geochronology of sulfide minerals (Re-Os and several other chronometers) and transition metal (Ti, Fe, Cu, Zn, Mo, Ag and Cd) and metal (Sn) isotope geochemistry. He also is interested in creating a research program to analyze the water quality of the Susquehanna River Basin. Dr. Mathur's research has been published in Earth and Planetary Science Letters, Journal of South American Earth Sciences, Mineralium Deposita, Geology and Economic Geology. Mathur has also served as a geochemical consultant for mining, government, and academia for over 20 years. Mathur received a B.A. in history and geology from Juniata College and a Ph.D. in economic geology and isotope geochemistry from the University of Arizona.

Esuru R. Okoroafor

Member

Esuru Rita Okoroafor is an Assistant Professor at Texas A&M University and previously served as a Principal Reservoir Engineer at SLB, an organization she worked with for 13 years. Her research focuses on subsurface engineering for sustainable energy, including geothermal energy, geological carbon dioxide storage, and underground energy storage. Dr. Okoroafor has held various technical committee roles especially for the Society of Petroleum Engineers (SPE) Annual Technical Conference and Exhibition. She also has been a technical committee member for the Carbon Capture Utilization and Storage (CCUS) Conference and Geothermal Rising Conference. She serves as an Associate Editor for the Petroleum Science and Technology Journal and Editor for the Journal of Petroleum Technology. She is honored as an SPE Distinguished Lecturer (2023 – 2024) and is a 2021 GRIT Award Recipient. Dr. Okoroafor received a Ph.D. in energy resources engineering from Stanford University.

Caitlin Fox Smith

Member

Caitlin (Caity) Smith has 20 years of experience in the geothermal industry, spanning project management, stakeholder engagement, and regulatory and government affairs. As director of stakeholder engagement at XGS Energy, she works cross functionally to coordinate technical teams, local communities, and government partners. Her background includes geothermal well drilling projects in the United States and internationally, capacity building work in East Africa, and leadership roles at the National Renewable Energy Laboratory. Smith is a founding member of Women in Geothermal (WING) and serves on the Board of Directors and the U.S. Policy Council at Geothermal Rising. She holds a M.A. in education as well as a B.A. in environmental studies and planning from Sonoma State University.

Jacqueline Wong

Member

Jacqueline Wong is the Senior Vice President for Climate and Energy at the Natural Resources Defense Council (NRDC). In that capacity, she advances NRDC's goals related to climate change mitigation and clean energy. Before assuming this role, Wong led NRDC's Industrial division and focused on the decarbonization of the industrial sector, responsible deployment of green hydrogen in targeted applications, mitigation of non-CO2 greenhouse gases, and development and commercialization of emerging technologies. Previously, she was a senior advisor for energy and climate change at the White House, where her portfolio included Kigali Amendment to the Montreal Protocol to address hydrofluorocarbons and policy related to the federal coal program, the Outer
Continental Shelf. She also has experience working on international clean energy cooperation at the U.S. Department of Energy and in the private sector at Bain Capital and McKinsey & Company. Wong received a bachelor's degree in economics and English from Yale University and an MPA with a concentration in economics and public policy from Princeton University.