

info@cangea.ca

www.cangea.ca

P. O. Box 1462 St. M Calgary, Alberta T2P 2L6, Canada Ph: (403) 801 6805

The Canadian Geothermal Energy Association (CanGEA) is the collective voice of Canada's geothermal energy industry. As a non-profit industry association, we represent the interests of our member companies with the primary goal of unlocking the country's tremendous geothermal energy potential. Geothermal energy can provide competitively priced, renewable, round-the-clock energy to the Canadian and U.S. markets and a part of the solution to growing concerns about securing sustainable, cost-effective energy sources.

CanGEA promotes the industry and the potential of geothermal energy in Canada through outreach events, research, policy work and representation of Canadian interests internationally.

Dr. Daniel Yang

Dr. Daniel Yang: Dr. Daniel Yang (nee Pribnow) is a globally acclaimed leader in the geothermal energy engineering field. Dr. Yang is dedicated to paving the way for the development of commercially viable geothermal energy in Canada. Owning more than 20 years of experience leading large-scale international exploration and development programs in the oil & gas industry and an in geothermal sectors, combined with a Doctorate in Geophysics, Dr. Yang is a recognized Subject Matter Expert in advanced thermal recovery and is committed to delivering both the physical sub-surface expertise and operational strategies for geothermal exploration projects across Canada.

As a Senior Reservoir Engineer at the Institute for Joint Geoscientific Research, he was able to participate in the pioneer utilization of the Enhanced Geothermal Systems (EGS) technology to generate electricity on an economic scale. Among his considerable achievements in this capacity, he served as a custodian for the Global Heat Flow Data Base and as a Member of the International Heat Flow Commission (IHFC).

Dr. Yang was engaged by Shell as a Senior Reservoir Engineer in 2000 to support the company's geothermal team with an EGS pilot in Nicaragua and a Joint Venture with the commercial EGS project in Soultz, France. He quickly developed the expertise to lead the evaluation of EOR (Enhanced Oil Recovery) options globally for a large number of the company's international E&P assets.

From 2005 to 2010, he held the technical lead in Shell Canada, piloting classified thermal recovery methods and maturing large scale conventional thermal developments of Shell's oil sand assets in Canada, with core responsibility for numerical simulations, regulatory compliance reserves booking, staff training & development, and economic optimization. He led a geothermal analysis and interpretation that resulted in a proposal for the Alberta Energy Research Institute (AERI) to use large scale EGS in Shell's oil sand mines. This included generating new data by re-entering an existing deep well for borehole measurements.

He also has reports, publications, and patents on the insights and methods of industry best practices and achieved the single highest rating out of 900 individuals in the 2008 annual ranking for Unconventional Oil in Shell. In 2008, he was nominated as a Subject Matter Expert, which solidified his status as a global technical expert in oil & gas exploration.

In late 2010, Dr. Yang decided to join Canadian Natural Resources to build and lead a team of reservoir engineers for cyclic steam stimulation bitumen extraction (CSS). He oversaw more than 700 wells producing 100,000 bbl/d, and continuously optimized operations. Furthermore, he led the assessment and implementation of a follow-up process to CSS for maximizing recovery.

Advancing to new challenges, Dr. Yang joined Laricina Energy Ltd. in 2012, where he played a key role in developing an economic bitumen recovery from naturally fractured carbonate reservoirs such as the Grosmont. In his role as Chief of Reservoir Engineering he supported and guided the Steam Assisted Gravity Drainage (SAGD) Commercial Demonstration Project Germain, exploiting the Upper Grand Rapids reservoir by coinjecting solvents and natural gas with steam. In 2014, Dr. Yang received the Best Paper Award for the SPE Canadian Heavy Oil Conference.

Dr. Yang partnered in the launch of Borealis GeoPower in 2007 to supply business and technical support for the Canadian energy industry's geothermal exploration projects. Since then he has provided consultative leadership for \$30MM exploration projects, including a co-production project funded by the Alberta Energy Research Institute (AERI). He was an active member of the Geothermal Reporting and Reserves Committee (sponsored by the Canadian Geothermal Energy Association, CanGEA) developing a code for public reporting of geothermal resources and reserves in Canada, and assisted in publishing Geothermal Potential Maps for Alberta and British Columbia. Until 2014, when Dr. Yang decided to retreat from his involvement with Borealis GeoPower for personal reasons, he was one of the leading forces behind Borealis GeoPower.