Movers & Shakers

FELLOWSHIP OF SEVEN Seven APEGA Members were inducted recently into the Canadian Academy of Engineering for their dedication to the principles of science and engineering. Their efforts have had considerable effect on the country and its enterprises. From left to right are Judy Fairburn, P.Eng., Robert Reid, P.Eng., Clement Bowman, CM, P.Eng., C. Peter Watson, P.Eng., Owen Tobert, P.Eng., Steve Hrudey, P.Eng., and Jim Beckett, P.Eng.



26 years before moving to **AMEC Environment & Infrastructure.**

Currently the Senior Principal at **Coffey Geotechnics Inc.**, Mr. Davachi has 45 years of experience in the field of geotechnical engineering. He has a wide range of experience, with projects for oil and gas projects, industrial plants, and ports and marine facilities. He's also been professionally involved in mining, wind power, transportation, and cold region geotechnical engineering for the Beaufort Sea region.

The award is presented to an outstanding individual who has provided exceptional efforts, energy, and/or contributions to the "Art of Geotechnique," as the society calls it, in Calgary.



MICKEY DAVACHI, P.Eng. geotechnical expert - photo courtesy Coffey International

SEVEN FELLOWSHIPS FOR SEVEN MEMBERS

It's that time of year again - when the Canadian Academy of Engineering (CAE) takes on the task of reviewing career highlights and accomplishments of Professional Engineers from across the country, selecting a few of the best as fellows. This year seven APEGA Members were inducted at a June ceremony in St. John's.

Robert Reid, P.Eng., is all about solutions. He has resolved everything from technical challenges to complex political and multi-discipline issues. His concepts for resolution have brought closure to several contentious natural gas and transportation issues.

Mr. Reid graduated from the University of Saskatchewan with a degree in electrical engineering. He went on to receive a master's from the University of Waterloo and began a career at **TransCanada Pipelines Limited**, serving as President, Energy Transmission, and Senior Vice-President. At TransCanada Mr. Reid implemented a plan to access frontier supplies of natural gas and was instrumental in negotiating the first deregulated price for natural gas in Canada.

After 33 years with TransCanada, Mr. Reid retired in 2000, but he continued to lend his expertise to conflict resolution. He became an Executive Associate with Ziff Energy Group (now **HSB Solomon Associates Canada Ltd.**) and later President of the Mackenzie Valley Aboriginal Pipeline LP. Mr. Reid's work on the pipeline saw N.W.T. Aboriginals brought into a one-third ownership interest and active participation in the development.

Mr. Reid is an honorary life member of the Canadian Gas Association and a past chair of the Canadian Energy Pipeline Association.

Water expert **Steve Hrudey, P.Eng.**, was inducted into the CAE for his pioneering efforts in environmental risk assessment, management and communication. His expertise during the Walkerton Inquiry led to international recognition and the development

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of preventive risk management methodology currently used all over the world.

Dr. Hurdey is no stranger to *PEG* pages, having been honoured in 2012 with the A.P. Black Research Award and in 2013 with a Diamond Jubilee Award. An APEGA Councillor, he has served on 25 expert panels and is currently a Professor Emeritus at the University of Alberta.

Owen Tobert, P.Eng., managed an annual operating budget of almost \$3 billion and oversaw 15,000 employees. As City Manager for the City of Calgary, he had his hands full. Now retired, he has been inducted for the significant impact his leadership had on the city during his 10 years of service.

After receiving a degree in civil engineering from the University of Alberta, Mr. Tobert joined the City of Calgary's administrative team in 1982 and then worked his way through increasingly senior engineering positions. In 2000, he became General Manager of Utilities & Environmental Protection and was appointed to the executive team. In 2004 city council appointed Mr. Tobert to the position of City Manager, responsible for a yearly capital budget of \$2 billion, along with the aforementioned operating budget.

During his time with the City of Calgary, Mr. Tobert introduced a corporate project management framework, increased financial planning and helped foster a culture that put citizens first. In 2005 he faced the biggest flood Calgary had seen in half a century. He identified the need for a group of resources focused purely on recovery and undertook a study of emergency management.

Did that work ever pay dividends. His efforts prepared the city for the massive floods of June 2013, earning it praise for its coordination and recovery efforts.

A chemical engineer with a career spanning 60 years, APEGA Life Member **Clement Bowman, CM, P.Eng.,** was inducted as an honorary fellow.

Dr. Bowman's career began in Ontario, where he worked with Imperial Oil Limited to test the process of bitumen separation on a variety of oil sands. The testing led him to the oil sands formation in Alberta, and later he joined **Syncrude Canada Limited.** Appointed by Premier Peter Lougheed in 1975, he was the first Chair of the Alberta Oil Sands Technology and Research Authority. He also advised the Premier on energy issues.

During his time with the authority, Dr. Bowman started a project to obtain access to deep oil sands deposits by directional drilling – the basis for the process now known as steam-assisted gravity drainage.

After returning to Imperial Oil as Vice-President, he became President of the Alberta Research Council and later opened his own consulting practice.

At a time when most people are thinking about retirement, Dr. Bowman was inspired to create a methodology for decisionmaking management for situations such as selecting research projects, choosing corporate strategies and making decisions on proposals. ProGrid Evaluation Solutions was the result. Dr. Bowman continues to work as advisor to the Bowman Centre for Commercialization of Technology in Sarnia.

Dr. Bowman has received numerous awards, including the APEGA Centennial Summit Award, the Alberta Science and Technology Leadership Award, and the Laureate of the Global Energy International Prize.

A man responsible for the development of many significant policy frameworks, **C. Peter Watson, P.Eng.**, was inducted into the CAE for his personal leadership, integrity and ability to forge consensus among diverse interests.

Mr. Watson has just been appointed Chairman and CEO of the National Energy Board, meaning he leaves behind his Government of Alberta roles as Deputy Minister of the Executive Council

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and Head of the Alberta Public Service.

He's also served in two of the most technically complex and challenging departments, as Deputy Minister of Energy and Deputy Minister of Environment. He led the development of Alberta's Provincial Energy and Water for Life Strategies as well as Alberta's Climate Change Regulatory Framework. Bringing an engineering perspective to his work, Mr. Watson has advanced Alberta's carbon capture and storage initiatives and improved Alberta's competitive position for oil and gas investment and development.

Jim Beckett, P.Eng., FEC, FGC (Hon.), is an Honorary Life Member and a past-president of APEGA. Mr. Beckett has been involved in leadership for most of his career.

Mr. Beckett spent almost 37 years with the ATCO Group of Companies, starting in 1973 as Manager of Systems Operations and later acting as vice-president of various departments, including Transmission, Commercial and Regulatory. He led ATCO in the development of computer systems to optimize transmission and distribution assets, and in 1995 he was seconded to lead a provincial team working on electric utility deregulation. The team's work led to the Alberta Electric Utilities Act.

Mr. Beckett assisted Alberta in deregulating the electric and natural gas utilities industries, and helped narrow the focus of ATCO's utilities business to the provision of pipes and wires. In 2010 he was appointed Utility Advisor to the City of Edmonton.

Klohn Crippen Berger

Len Murray, President of Klohn Crippen Berger Ltd. (KCB), is pleased to announce the following Associate appointments.



Pamela Fines, P.Eng., M.A.Sc. Manager, Civil Projects, Edmonton

Pamela Fines joined KCB in 2002 after completing her Master's degree at the University of British Columbia. Pamela has 15 years of experience as a geotechnical engineer and project manager working on the design and construction of tailings dams and waste rock dumps for mining projects in Canada, Mongolia, the

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United States, Chile, Australia, the Philippines and Papua New Guinea. Pamela is now based in our Edmonton, Alberta, office applying her experience to both mining and Infrastructure assignments with a variety of clients throughout Western Canada.



Sarah McArthur, P.Geol., M.Sc. Groundwater Team Lead, Alberta

Sarah McArthur joined KCB after graduating from Simon Fraser University with her M.Sc. in Earth Sciences (Hydrogeology) in 2006. Based in our Calgary office, Sarah is a senior hydrogeologist with over thirteen years of experience related to mine dewatering, aquifer characterization, groundwater management,

contaminated soil and groundwater investigations, oil and gas exploration, and geological mapping. Sarah manages the groundwater team in our Oil & Gas and Mining group, specifically addressing assignments for oil sands mining clients.



KCB is an international engineering, geoscience and environmental consulting firm with 12 offices located in Canada, Australia, South America and England. He was APEGA's 90th President and went on to serve as President of Engineers Canada. He currently provides consulting services with Beckett Consulting.

In the winter edition of *The PEG*, we'll have more on **Judy Fairburn, P.Eng.**, who was also named a fellow of the CAE.

\$35 MILLION WORTH OF REASONS TO REDUCE CARBON

The Climate Change and Emissions Management Corporation is serious about carbon management. To the tune of \$35 million. An Alberta-based competition launched by the corporation is challenging participants to find innovative uses for carbon. *The Edmonton Journal* reports a University of Alberta project has been announced as one of the 24 first-round winners.

The project, being developed by the University of Alberta and Alberta Innovates – Technology Futures, endeavors to create a fuel cell that consumes carbon dioxide rather than produces it. The cell will be capable of combining methane, carbon dioxide and air to produce water, electricity and carbon monoxide.

Thomas Etsell, P.Eng., a professor in the U of A Department of Chemical and Materials Engineering, is the leader of the project. In an interview with the *Windsor Star*, he said his group has developed a catalyst that favours hydrogen being oxidized rather than carbon monoxide. By stopping the CO from reacting and having only the hydrogen react, the result is a formation of water as opposed to CO₂. Dr. Etsell says the cell is 92 per cent effective so far in converting only hydrogen, and the team is working to improve that number.

Selectees in the first round of the competition will receive \$500,000 in funding over two years. The final project will be awarded a \$10-million grant in 2018. So far the competition has received 344 submissions from 37 countries.

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