

Citation – SGS Geoscience Honour Role – Laurence Vigrass

Laurence Vigrass is a native son of Saskatchewan. He was born in Melfort in the parkland region of the east-central portion of the province and was raised on a farm near Pathlow, not far from his birthplace. He is the eldest of two boys in a family of six children. He received his early education in the Pathlow area and after secondary school graduation, he entered the College of Engineering at the University of Saskatchewan. He registered at a time when the university facilities were strained to their limits by large enrolments of World War II veterans. His close proximity to the land through his farm upbringing was, undoubtedly, a factor that led Laurence into geological engineering and he received his B.E. degree in 1951. He continued his studies the following year to obtain the M.Sc. (Geology) degree. His thesis was a subsurface study of the Jurassic rocks of Saskatchewan using all borehole data available at that time. Like most geology students at the U of S, Laurence spent his summers on the Precambrian Shield of northern Saskatchewan, but on graduation he entered the field of petroleum geology.

He began his professional career with California Standard (Chevron) working out of the Regina office. Although wellsite work was a major part of his early training, he also did field work in southern Saskatchewan and in the Canadian Rockies. While at the U of S, Laurence met his wife Glenna, a graduate of St. Paul's School of Nursing in Saskatoon, and shortly after he commenced employment with California Standard, they were married. In the late 1950's Laurence took a break from gainful employment to study for a Ph.D. degree at Stanford University, which was awarded in 1961. His thesis was a mapping project in eastern Oregon, supported by Humble Oil Company and as was the case with his M.Sc. thesis the rocks in his study area were mainly Jurassic in age.

Laurence returned to petroleum geology with Imperial Oil and began a long association with heavy oil and tar sands. It was during this period that he published his well-respected paper "Geology of Canadian heavy oil sands" for which he received the CSPG Link Award. His interest in heavy oil reservoirs led to a second award-winning paper, in 1978, entitled "Trapping of oil at intra-Mannville (Lower Cretaceous) disconformity in Lloydminster area, Alberta and Saskatchewan. He received the CSPG Medal of Merit for this paper.

He left Imperial in 1965 to begin a career as a consulting geologist. However, in 1968 he was recruited by Dr. Tony Gordon and became a member of the fledgling Department of Geology at the University of Regina. At one time or other during his tenure at the U of R, Laurence has taught a wide variety of classes including Structural Geology, Ore Deposits and Mineralogy, but he is know best for his courses in Petroleum Geology, Groundwater and Geomorphology. In 1976, he was seconded to the Energy Research Unit as the Director. He played a leading role in attracting research and contract funds to that unit and was instrumental in initiating studies into applications of alternate forms of energy. In spite of his support of non-conventional forms of energy, he did not divorce himself from fossil fuels. He promoted coal petrology and coal chemistry research as well as continuing his career long association with heavy oil. It was through Laurence's efforts that Judith Potter came to the Energy Research Unit and the Department of Geology; her work, and that of her graduate students, in coal petrology and later in organic petrography of petroleum source rocks, established good reputations for both entities.

However, Laurence is probably best known for his low-grade geothermal project and for the well that was drilled on the U of R campus to test the heat capabilities of the deep subsurface fluids. To complete the project, a second well for water disposal and a building for space heating experimentation were needed, but much to Laurence's chagrin financial support by both federal and provincial governments was rescinded and the completion of the project stalled. However, the experiments carried out on the original well have supplied Laurence with considerable data, which he has been able to apply to other projects. This has made him sought after for his understanding of the significance of well flow-test data, formation fluid migration and the geothermal potential of deep formation fluids. His knowledge in this area has resulted in numerous invitations to make presentations, as well as foreign consultations in Brazil and Iran. Locally, he was a consultant to the City of Moose Jaw on its geothermal well project. The well resulted in the development of the Temple Gardens Health Spa and the rejuvenation of downtown Moose Jaw.

Laurence left the Energy Research Unit in 1985 to return to fulltime teaching in the geology department and in 1988 he took over as department head. After three busy years as head, he decided to take early retirement, to devote more time to consulting and to the pursuit of leisurely living at the Vigrass retreat near Katepwa.

I know that you will agree that Laurence Vigrass has made significant contributions to Geoscience in Saskatchewan through his research and his teaching at the University of Regina.