Memorial to Theodore August Link 1897-1980

W.D.C. MACKENZIE

2nd Floor, 409 - 8th Avenue S.W., Calgary, Alberta T2P 1E3



Photograph courtesy of Ashley & Crippen, Toronto, Canada

The Canadian petroleum geological community lost one of their founding and best-known members when T. A. Link died in Victoria, British Columbia, on June 25, 1980, at the age of eighty-three, after a long period of failing health. Ted, or "Doc", as he was affectionately known by many, had legions of friends and acquaintances in the United States as well as in Canada.

Ted is survived by his wife, Viola; two sons, Ted and Bob; his daughter, Mrs. Albert Lehmann; and his brother, Walter (a distinguished petroleum geologist, now semiretired). Ted's eldest son, Tom, lost his life in the service of the U.S. Air Force in World War II.

Ted was born in Laporte, Indiana. He grew up there with five brothers and four sisters. Most of the family were very serious scholars in several different

academic disciplines. However, geology and hydrocarbons seemed to make Ted and Walter somehow different, because while both were very professional in their chosen field of geology, they were both renowned practical jokers and humorists; in the opinion of some, Ted substantially exceeded even Walter in this regard.

Ted obtained his B.Sc. degree at the University of Chicago in 1918; about one year later he joined Imperial Oil Limited (and affiliated companies). He did field work in the U.S. midcontinent, in Colombia, S.A., and in the Western Canada sedimentary basin. He may have been the first petroleum geologist to examine the entire periphery of the Lower Mackenzie River Basin, as well as the then-uncharted Richardson Mountains of the Northwest Territories in 1920. That same year, Ted staked the discovery well of the Norman Wells oilfield; but, because the location was next to well-known seepages, he never sought any personal credit for the location, preferring to emphasize the regional significance of this, the first Arctic oilfield.

In the late 1920s, Ted returned to the University of Chicago where he obtained his doctorate, and his dissertation involved structural geology; indeed, about one-third of his subsequent professional career was devoted to the foothills of Western Canada where structural prospects are the consequence of the tectonic forces that gave rise to the building of the Rocky Mountains. Today, in the 1980s, the trade journals and the bulletins of the CSPG and the AAPG give considerable emphasis to the activity in the "overthrust belt" from Utah-Colorado north to Wyoming, Montana, Alberta, British Columbia, and the Northwest Territories. Few realize that Ted Link, in the 1930s, was probably among the first to publish on the commercial significance of this long trend of eastward-thrusting sheets. Ted's early cross-sections are quite remarkable, bearing in mind that his hypothetical concepts were built without the benefit of seismic correlations and with very sparse subsurface geological information.

In the middle 1930s funding of exploration in Western Canada was miniscule due to the Depression. What little commercial petroleum geology there was to do, Ted and one assistant could handle. Perhaps to keep occupied, Ted took a leave of absence and returned to Chicago, where he designed and built some of the dioramas of the petroleum industry as exhibits for the second Chicago World's Fair.

With Japan's entry into World War II, Ted returned to the Northwest Territories in the early 1940s and directed an exploration program designed to find "backup reserves" for the Canol wartime project (a pipeline 550 miles across the Arctic, from Norman Wells to Whitehorse).

After World War II, Imperial Oil Limited re-deployed their exploration effort to the general area of Edmonton, and in 1947, Imperial Leduc #1, a rank wildcat well, found oil in a Devonian reservoir of reefal material; this discovery was the effective birth of Canada's modern oil and gas industry. Naturally, Ted had immersed himself in this reef exploration play, but he did not forget to spend time with a young, expanding geological staff, often emphasizing to them the importance of reading Charles Darwin's writings on Pacific Ocean reefs to appreciate Devonian reef reservoirs, and sending as many as he could to see West Texas, where reef production had emerged.

One of Ted's friends has written that a few years after the Leduc discovery, the Canadian oil and gas industry changed; much larger corporations emerged and tended to be more rigid, and budgets and planning became more important, even sacred.

All this was just not Ted's style, so he resigned from Imperial and began a career as a consulting geologist in two successive partnerships, first with Dr. Art Nauss, and later with John Downing and Don Cooke.

John Downing recalls Ted as "a hard driver, an ethical professional, and generous with his time and money. Despite a heavy workload, he encouraged junior partners to write papers and present them. He never compromised his reputation in the face of many opportunities."

Ted was a Fellow of the Geological Society of America, president of the Alberta Society of Petroleum Geologists (1928–1929), and president, American Society of Petroleum Geologists (1956–1957).

He was on the Distinguished Lecture Panel, AAPG, in 1949-1950. Ted was awarded the Barlow Memorial Medal, Canadian Institute of Mining & Metallurgy in 1949, the S. G. Blaylock Medal (CIMM) in 1960, and the J. C. Sproule Placque (CIMM) in 1974.

In semiretirement in Victoria, before his health began to fail, Ted took an increasing interest in astronomy. However, it should be noted that astronomy was a lifelong interest of Ted's. His AAPG paper "Whence Came the Hydrocarbons" (see selected bibliography) is a philosophical (perhaps even whimsical) view that the first hydrocarbons just might have come from space.

Many of us began our careers working for Ted. For all of us it was a privilege to be taught three things: first, petroleum exploration is the application of several of the earth sciences always with limited and indeed inadequate information, so that your attitude has to be flexible; second, there is no room for pomposity and other forms of self-importance—if you had even a slight inclination along these lines, you were ridden so hard you were cured, or you were fired; and third, there is much to laugh about in this world and there is always time to smell the flowers.

I have been persuaded by Don Cooke, one of Ted's close friends, to submit this manuscript to other learned societies. Thus, if readers do encounter this duplication, my apologies are offered; however, we sincerely believe that Ted would have taken the same course of action.

SELECTED BIBLIOGRAPHY OF T. A. LINK

- 1927 (with R. T. Chamberlin) The Theory of Laterally Spreading Batholiths: Journal of Geology, v. 35, no. 4.
- 1928 Relationship Between Over and Under-thrusting as Revealed by Experiments: American Association of Petroleum Geologists Bulletin, v. 12, no. 8.
- 1931 Geological Surveys from the Air: World Petroleum, v. 2, no. 3.
- 1934 (and P. D. Moore) Structure of Turner Valley Gas and Oil Field, Alberta: American Association of Petroleum Geologists Bulletin v. 18, no. 11.
- 1945 (with G. S. Hume) Canol Geological Investigations in the Mackenzie River Area, Northwest Territories and Yukon: publication, Department of Mines and Resources, Mines and Geology Branch, Government of Canada, Ottawa.
- 1950 Theory of Transgressive and Regressive Reef (Bioherm) Development and Origin of Oil: American Association of Petroleum Geologists Bulletin, v. 34, no. 2.
- 1954 Interpretations of Foothills Structures Alberta, Canada: American Association of Petroleum Geologists special publication on Western Canada Sedimentary Basin.
- 1957 Whence Came the Hydrocarbons: American Association of Petroleum Geologists Bulletin, v. 41, no. 7.