Lowell E. Redwine, one of California's most knowledgeable petroleum geologists, died of a heart attack on March 21, 1982, in his 71st year. Until the end, he was vigorous both intellectually and physically and was continuing to contribute to the understanding of complex problems such as the reasons for fracturing in the Monterey Shale.

Lowell was born on September 1, 1911, in Dennison, Texas, the only child of Olive and C. J. "Jack" Redwine. His father came from German stock and his grandmother was a Cherokee Indian—a fact of which Lowell was proud. When he was 5 years old, his family moved to Eureka Springs, Arkansas, where his father was an accountant and in the insurance business. The Redwines next moved to Los Angeles, California, when Lowell was 13 years old. He graduated from Jefferson High School, Los Angeles, and from 1930 to 1935 attended the University of California, Los Angeles, graduating with a major in geology. Until July 1937, Lowell continued his education while working as a part-time geologist. He obtained his M.A. degree in marine geology at Scripps Institution of Oceanography, where he joined with Frederick M. Varney in inventing and developing a submarine coring device which was later patented. During the same period, he worked under the supervision of Martin Van Couvering (now deceased) on the protracted lawsuit involving the Kettleman Hills oil field. Lowell, as a result, developed early a keen appreciation of the geological and engineering complexities within a large oil field. He also grew to deeply admire Martin Van Couvering, who later founded the American Institute of Professional Geologists. In fact, Lowell became Charter Member No. 46. Also during this period, Lowell performed geological services for R. W. Sherman (now deceased), consulting petroleum geologist in Los Angeles.

Lowell maintained a lifelong interest in education, both in his own and in professional programs for other geologists. In mid-career, between 1962 and 1964, he returned to UCLA, taking work leading to his Ph.D. in geology. The degree was awarded in 1972 for a thorough and truly outstanding dissertation dealing with the Tertiary Princeton submarine valley system beneath the Sacramento Valley, California. This study involved the analysis and synthesis of huge amounts of data, both subsurface and surface, and formed the basis for Lowell being recognized as an authority on the origin and characteristics of filled submarine valleys. He deplored the phrase "submarine canyon" because most are broad and valley-like and not at all narrow and gorge-like.

His talks before AAPG-affiliated groups were loaded with facts, tightly reasoned, and superbly illustrated. One of these, "Morphology, sediments, and geological history of basins of Santa Maria area, California," dealing with another of his geological interests, won for him the Best Paper Award at the annual AAPG Pacific Section meeting in 1963. No one knew more about the Santa Maria region than Lowell.

He was a part-time instructor at the University of California, Santa Barbara (1963
and 1964), at Orange Coast College, Costa Mesa, California (1972 and 1973), and at California State University, Los Angeles (1977).

He was above all an oil geologist with a research emphasis. Following his assistantship at Scripps Institution of Oceanography, he joined Richfield Oil Corporation for a few months to work on near offshore areas. From September 1938 until February 1943, he was a core analyst at Superior Oil Company's geological laboratory at Rio Bravo, California, and afterward joined the exploration staff of the Honolulu Oil Corporation. During 18 years with Honolulu, he undertook geological exploration in many districts of California and the western United States, and was based successively in San Francisco, Santa Barbara, and Bakersfield. For a decade of his service with Honolulu, he was district geologist for the Coastal District and then for 2 years the district geologist for the Great Basin. From October 1961 until August 1964, he was self-employed as a consulting geologist, first in Bakersfield and then in Santa Barbara. He then accepted a position for 2 years as a research geologist with the Atlantic Richfield center at Anaheim, California. This was followed by a decade as a research geologist with Union Oil Company's research center at Brea, California. After 1976, although he was formally retired, he again became an active geological consultant and was so engaged professionally when he died.

He was a member of the AAPG for 44 years and served the association as a district representative on the Business Committee, as a delegate in the House of Delegates, as an associate editor of the AAPG Bulletin, and as a member of the Distinguished Lecture Committee. He was the first president of the Coast Geological Society, and charter member and later secretary and president of the Northern California Geological Society. He was also a Fellow of the Geological Society of America, and a member of the Society of Sigma Xi, the American Association for Advancement of Science, and Sigma Gamma Epsilon. He was a California registered professional geologist (No. 35) and professional petroleum engineer (No. 268), and held an instructor credential for earth sciences, California Community College system. He also had been a member of the Rotary Club of Santa Barbara and Bakersfield.

Lowell leaves his wife, Pauline, to whom he was married for 35 years. Together they raised a daughter, Joyce, now living in La Jolla, California, and two sons, Craig and Keith, both of Arcata, California. In addition to the time with his family, Lowell most enjoyed his hobbies: geological photography and tennis. He also relaxed watching sports on television, and as a UCLA alumnus, he especially enjoyed basketball.

The hallmark of his geological work was attention to detail and careful observation. A longtime colleague and friend quoted him as saying that geology was known as an "inexact science" largely because geologists failed to make and record accurate and detailed observations. He was skeptical of "models," so much in vogue these days. Just a month before he died, Lowell emphasized that petroleum geology is based on an inductive approach and that deduction is soundly applicable only when the data are not obtainable. Petroleum geologists are not necessarily in the business of improving the plate-tectonic model or elucidating a model's fine structure. Their geological interpretations must be based on facts and more facts, gathered through hard work and analyzed critically—anchored as well in modern knowledge of sedimentary processes, structural concepts, and fluid flow, obtained through reading the literature assiduously and in attending lectures and short courses.

His colleagues knew him as a hard taskmaster, one who expected a great deal from them and from himself, but also as a friend who was always patient in explaining concepts and what was required. Above all else, he was a scientist. He leaves a heritage in the memory of his many friends and colleagues of sound professionalism and an admiration of his knowledge of California geology. We shall miss him.