Memorial to (Everett) Philip Andrews 1898–1983

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To be a field geologist required a fondness for adventure in the days when Philip Andrews entered the profession. Phil had this taste in abundance, combined with a keen intelligence and a tough yet gentle nature that carried him through diverse geological assignments. Some of his work was in primitive country, still hard to reach at the time. Some of his jobs were supervisory, where, never losing his sense of how geology should be done, he shared his knowledge and experience with other geologists who followed. Whatever the work, he always performed with style and good humor. In the face of growing disabilities and protracted illness in his last years, he won admiration from all who knew him for his remarkable strength and happiness of spirit. He died where he was born, in Boulder, Colorado, on March 13, 1983.

(Everett) Philip Andrews and his two sisters were the children of Darwin and Mary Wheeler Andrews, pioneer Boulder residents. Born on February 22, 1898, Phil grew up in the very shadow of those great monoliths of Fountain Arkose, "The Flatirons." Here, his father, a well-known horticulturist, operated the Rockmont Nursery, and the setting seems to have had an early effect on Phil's career plans. Completing work in the Boulder Public Schools, he entered the University of Colorado to major in geology, and graduated with the A.B. degree in 1921. A year later he finished studies for the B.S. degree in mining engineering at the Missouri School of Mines, and by the fall of 1922 he had accumulated three summers of experience working with the state surveys of Wyoming and Colorado. Phil then taught geology for an academic year at the Oklahoma School of Mines on the edge of the Ouachitas at Wilburton. But, bolder undertakings beckoned him, and from June 1923 to October 1924 he worked as an engineer and geologist in the mines near San Juan, Coahuila and Fresnillo, Zacatecas. Then followed seven years of work for Standard Oil Company of California, the first half of it in Trinidad, B.W.I. Phil then worked in western Venezuela, was put in charge of exploration in eastern Venezuela, and finally spent most of 1931 in pioneering exploration of the Upper Amazon Basin in Peru and Ecuador.

With a lot of experience in complex geology and primitive living conditions, Phil Andrews was ready for a brief return to academic studies. In the next one-and-a-half years he completed work for the M.S. degree at the famous Department of Geological Sciences of the University of California (Berkeley). His thesis work was the first detailed study of the Pinnacles (National Monument) area in the Gabilan Range just to the southwest of the San Andreas fault. The study of this "chewed-up" area of Miocene metasedimentary rocks and volcanics remained the definitive geological interpretation as displayed on the *Geologic Map of California* (see Santa Cruz Sheet, 1959).

Upon completing the M.S. work, Phil Andrews again "shipped out" to spend three years as District Geologist for Gulf Oil Company in eastern Venezuela. He compiled much of the known geology of that region and was involved in a good bit of the

mapping. The death of his father summoned Phil back to Boulder in 1936, where winding up complex family business took him one-and-a-half years.

In 1938 it was back to his favorite kind of work, when Phil returned to South America as Chief Field Geologist in Venezuela for Socony Vacuum Oil Company. This assignment of almost five years was followed by a similar span as Socony's Chief Geologist in Colombia. Soon after World War II, Phil came back to Boulder to practice as a consultant for a year-and-a-half, but he was sought out to return to the Socony organization (in its various guises as General Petroleum and Mobil Producing Co.) as District Geologist.

It's a sufficient comment on the work of Phil Andrews that Socony wanted his services badly enough to take the unprecedented step of arranging for him to operate out of Boulder for over four years. He then became District Geologist in Casper, Wyoming, for five-and-a-half years, resigning from that position in 1958 to return to Boulder.

With thirty-eight years of geological work behind him, Phil now entered a new career involving oil and gas leasing, cattle feeding, and investment analysis. In what his good friends regard as one of the most felicitous happenings of his life, Phil, in 1961, married Dr. Zena M. Hunter who was then Associate Professor of Geology at the University of Colorado. Not only were both of them geologists, but the couple also shared a great enthusiasm for travel and for mineral collecting that took them to almost every part of the world over the next twenty years. They assembled a notable collection, later contributed to the Denver Museum of Natural History, and Phil became a skilled lapidary.

Phil Andrews was a member of many geological organizations, served as an officer in some of them, and was elected a Fellow of the Geological Society of America in 1957. He was an honored member of service clubs in Boulder.

Undoubtedly the last few years of his life, with failing eyesight and other disabilities, were the hardest for Phil to endure, and its seems that he really welcomed their end in March 1983. Phil Andrews is survived by his wife, Zena, by three daughters by an earlier marriage, and by five grandchildren.

Phil wrote little geological material for formal publication. Most of his recorded geological work is in the huge volume of reports he created. But, even these excellent pieces of work don't begin to measure the man nor the geologist. His distinctive contribution to the geological profession lies, without doubt, in the scores of younger geologists who learned "how-to-do-it" from Phil Andrews. He mastered the techniques of open-minded geological interpretation early in his life and constantly grew in skill over his long career. When former associates discuss him, they invariably recognize that he accomplished so much with people, in no small measure, because of the warmth and graciousness of his personality. At a loss for a better way of telling it, most of his friends fall back on saying merely that Phil was "just a great guy."

To work with Philip Andrews was to learn discernment, soundness, and quality in geological work. It was also to learn disdain for pretension and imposture, in science or elsewhere. These values, instilled in his successors, constitute the outstanding bequest of Philip Andrews to the profession of geology.

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