Memorial to Charles Edgar Erdmann
1897—1971

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Charles Edgar Erdmann, elected Fellow of The Geological Society of America in 1943, died suddenly of heart failure on June 24, 1971, at his home in Great Falls, Montana. By his passing, at age 73, the geologic profession lost the most knowledgeable geologist on the geologic structure and energy resources of the Great Plains of Montana.

Charles was born in Minneapolis, Minnesota, September 22, 1897, to Dr. Charles A. Erdmann, M. D., and Dr. Caroline Augusta (Edgar) Erdmann, M. D. He attended Pillsbury Academy at Owatonna, Minnesota, and enrolled at the University of Minnesota, but his education was interrupted by World War I. As a corporal in the 78th Company, Sixth Regiment, U. S. Marine Corps, Charles served with distinction until he was gassed at Belleau Wood, France, in 1918. After the war, he resumed his schooling and received the degrees of E. M. (geology) in 1923 and M. S. in 1924. During the academic year 1924-1925, he was an instructor in the Geology Department at the University of Minnesota, and the following year was a Dana Fellow at Yale University.

Charles was married to Marian N. Sands of Shelby, Montana, on July 8, 1938. They had met in Washington, D. C., where Marian was employed by the Geological Survey. As is so often the case, their marriage was a great success because the wife fully understood and accepted the great demands on time normally made of a government geologist. They had three children: Carolyn Sands (Mrs. H. Peers Brewer) of New York City; Charles E. Erdmann II, a student at Eastern Montana College, Billings; and Marian Elizabeth Erdmann, a student at Temple Buell College, Denver, Colorado. The family was a closely knit unit. Mrs. Erdmann became the first elected woman mayor of Great Falls in 1963, and was reelected in 1965. Theirs was certainly a busy and happy household.

From his USGS headquarters in Great Falls, Montana, over a period of 27 years he was able to make innumerable field observations of the surrounding region and thereby become a fountain of wisdom on the stratigraphy and structure of western and central Montana. Young geologists and students who came to the region always found him receptive and helpful. Every petroleum and engineering geologist assigned to Montana knew “Chas” Erdmann and from him obtained patient counsel and assistance on stratigraphic sections. Often, during my own years in that part of the country—at his office, at his home, or in the field—we engaged in long sessions on
geology that inevitably extended into cultural history of the West, the art of Charley Russell, philosophy, and a myriad of other subjects made lively by his insatiable reading habits and penetrating intellect. His was a mind capable of recalling complex detail—an important faculty of great benefit to young scientists. He was indeed a gentle man, kind to a fault, but greatly demanding of himself and others when it came to scientific reporting. Had he not been such a perfectionist in his own work and so dedicated to his responsibility as a geologist assigned to classification of the Federal lands, his already substantial bibliographic record would have been even more impressive.

Dr. Erdman's long and distinguished career in geology started in 1923 with the Humphreys Oil Company, Dallas, Texas. In 1924, with an appointment as Junior Geologist in the Fuels Section of the U. S. Geological Survey he began an association that lasted until the time of his death. After several years mapping coal in Montana and in the Book Cliffs coal field, Colorado and Utah, he was transferred in 1929 to Denver, Colorado, where he became part of the newly formed Conservation Division. For the next 15 years he was engaged in geologic investigations throughout the Rocky Mountain area that formed the geologic background for the classification of the Federal lands with respect to the leasable minerals, coal, oil, gas, oil shale, phosphate, sodium, potassium, native asphalt, solid and semi-solid bitumen, and bituminous rock, and for the determination of the feasibility of dam and reservoir sites that involved the Federal domain. It was during this period that he prepared, in collaboration with Dr. C. E. Dobbin, the Structure Contour Map of the Montana Plains, which proved to be one of the most popular and sought after maps ever published by the Geological Survey, and went through several printings and revisions under his continuing updating.

In May 1944, he was appointed Regional Geologist, Northwest Region, in Great Falls, Montana. In this position, he was responsible for all Branch of Mineral Classification activities in the states of Montana, northern Idaho, North Dakota, and Washington. He held this position until September 1957, when he was advanced to Research Geologist. From then on, he was able to devote his time to the many projects for which he had completed the fieldwork but was forced to abandon because of the press of day-to-day work. On December 30, 1965, Dr. Erdmann retired from the Geological Survey after 42 years of service but maintained his relationship on a "when actually employed basis," usually working about half-time. During this period his contribution to the stratigraphy and structure of Montana did not diminish.

Although his investigations were devoted largely to developing information necessary for proper administration of the mineral leasing laws in western states, his wide ranging interest permitted timely contributions in such areas as engineering sites, military terrain analysis, hydraulic engineering, and archaeological sites. His integrity was so highly recognized that he received much confidential company information, which he honored in all of his public service operations.

Through the years, many honors came his way. The Billings Geological Society (now Montana Geological Society) granted him honorary membership at their tenth annual field conference in Great Falls, August 12, 1959, and dedicated to him the guidebook of the seventeenth annual field conference, also in Great Falls, August 17-20, 1966. On November 12, 1959, the Distinguished Service Award and Gold Medal was
presented to him by the Secretary of the Interior for outstanding contributions to the science of fuels as related to the classification of the public lands. The University of Montana, Missoula, Montana, conferred an Honorary Doctor of Science degree on him June 4, 1962.

Dr. Erdmann was a Fellow of the American Society for the Advancement of Science, a Fellow of The Geological Society of America, a member of the American Association of Petroleum Geologists, the American Mineralogical Society, the Society of Economic Geologists, the American Geophysical Union, and the Alberta Society of Petroleum Geologists.

Dr. Erdmann was a highly regarded and respected geologist, who will be missed by his many friends throughout the world.

SELECTED PUBLICATIONS BY CHARLES E. ERDMANN


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— Outline history of oil and gas development in mineral and water resources of Montana: Report of the U. S. Geol. Survey in collaboration with Montana Bureau of Mines and Geology, prepared at the request of Senator Lee Metcalf of Montana of the Committee on Interior and Insular Affairs, United States Senate, Committee Print, 88th Congress, 1st Session, p. 23-44, fig. 7-Oil and Gas Fields of Montana, 1 table.