

Vale: Robert Edward Sheriff (1922–2014)



Photo courtesy of the University of Houston Robert Sheriff Collection.

Dr Robert E. (Bob) Sheriff passed away peacefully at his home in Missouri City, Texas on 19 November 2014 aged 92.

Bob's academic qualifications (BS, MS and PhD) were in Chemistry and Physics. From 1943 to the end of World War II he worked on the 'Manhattan Project' in Oak Ridge, Tennessee on uranium isotope separation. It was there that he met his wife Margaret, another Project employee.

Upon joining Standard Oil (Chevron) in 1950, Bob held various geophysical and managerial positions. He was seconded to management of West Australian Petroleum (WAPET) in 1962–1968. There, amongst other things, he was responsible for the training and recruitment of geophysical staff. As part of this duty in Perth, he produced a 30 page Glossary of Geophysical Terms for internal use. The value of this document was quickly recognised, and it spread to other partners, including Shell. It was passed on to the SEG's Glossary Committee headed by Milton Dobrin. Bob was encouraged to expand it, and the *Glossary of Terms used in Geophysical Exploration* was published in the February 1968 issue of *Geophysics*. The SEG recognised this as a major contribution to geophysical communication by awarding him the Virgil Kauffman Gold Medal in 1969.

With further expansion, the Glossary was adopted and published in 1973 by the SEG as the *Encyclopedic Dictionary of Exploration Geophysics*. Bob solicited contributions from the industry, and it was revised and published again in 1984, 1991, and as the *Encyclopedic Dictionary of Applied Geophysics* in 2002. The number of contributors acknowledged grew from around 40 in 1973, to 75 in 1984, 170 in 1991 and 230 in 2002. The Dictionary grew from 30 pages to 429 pages since its beginning. A valuable

key feature of this book is its extended entries. They contain definitions and usages as well as references to enable readers to delve more deeply into these topics. It is still the most widely used geophysical book in the world, and has been translated into at least 75 languages. The SEG has recently established SEG Wiki, and the Dictionary is now available free of charge at wiki.seg.org. This is a fitting move as it is doubtful that another single person could have been found to match the knowledge, enthusiasm and energy to carry on Bob's endeavours and maintain such a major cornerstone of geophysical professional knowledge. A glimpse of Bob's balanced sense of humour and frank honesty can be seen in the title of his TLE article in 1991, *How in the world I came to write the Encyclopedic Dictionary*.

Scientifically Bob was a champion of the use of exploration seismology in oil exploration. His main research interests were 3D seismic interpretation, seismic stratigraphy and reservoir geophysics. He was one of the originators of the geophysical topic *attributes* and is co-author of what some would consider the seminal article in the field, *Complex trace analysis* (*Geophysics* 1979).

Bob was equally well known as a communicator, mentor and teacher. As Margaret is quoted as saying, 'Explaining things that seem obtuse is what Bob does best'. Bob's teaching role became evident after his return from Perth when he began teaching in Chevron's in-house education program in Houston. His association with the University of Houston extended from 1970 as a part time lecturer, to a full time Professorship in 1981 until retirement in 2006, when he was granted an Emeritus Professor title. In a sense, Bob never left U of H, and continued to attend and participate in their weekly seminars.

His involvement in text book writing commenced when Lloyd Geldart, one of his first bosses, invited him to participate in the revision of the text *Applied Geophysics* by Eve and Keys, which was first published in 1926. Authors Telford, Geldart and Keys needed help with digital seismology from Bob. This association led to his being author or co-author of *Applied Geophysics*, *Exploration Seismology*, *Problems in Exploration Seismology and their Solutions*. His other books were

Geophysical Methods, *Reservoir Geophysics* and *Seismic Stratigraphy*. Margaret holds a degree in geology and her involvement in these publications was significant.

Bob, accompanied by Margaret, travelled widely giving courses around the world. In 1977 he was the SEG's Distinguished Lecturer, and in 1993, he was the ASEG's Distinguished Lecturer. Bob was proud of the fact that he had travelled every continent of the globe, including Antarctica, and claimed to have visited at least 135 countries. In an excursion across a glacier in Antarctica in 1992, Margaret, a long time senior member of the Girl Scouts, fell and injured her wrist. Ever enthusiastic, Bob encouraged her to soldier on, which she did in true Girl Scout tradition. It was only when they got back to Houston that it was discovered that she had indeed fractured her wrist, and it had set itself, though not correctly. It subsequently had to be broken again, and re-set properly. In 1993, Bob and Margaret returned to Perth where he held the distinguished position of Haydn Williams Fellow at Curtin University of Technology in Perth.

Through his publications, university teaching and professional short course presentations, Bob became the most renowned geophysicist in the world. Bob's many achievements have been well acknowledged and recognised. In addition to those already mentioned, the ASEG gave him a Special Commendation Award in 1996, and the SEG awarded him their highest award, the Maurice Ewing Medal for lifetime work in geophysics in 1998. In 1997 the University of Houston College of Natural Sciences and Mathematics gave him a Quest for Excellence Award.

In 1979 Bob was awarded Honorary Member in the SEG, and in 1980 Honorary Membership in the Geophysical Society of Houston. Bob was active in the following professional committees: SEG Academic Liaison Committee, SEG Development/Production Geophysics Committee, SEG Interpretation Committee, SEG Continuing Education Committee and AAPG Geophysical Interpretation Committee. Indeed, he embodied the spirit of the SEG in promoting the science of geophysics and the education of exploration geophysicists and fostering the expert and ethical

practice of geophysics in the exploration and development of natural resources.

The generosity of Bob and Margaret Sheriff is outstanding. They established four Chairs in Geophysics at the University of Houston, and have given nearly \$2 million dollars in support of the Department of Earth and Atmospheric Sciences at U of H. Their unshakable belief in holding the family together, regardless of circumstances, is the reason why the Margaret S. Sheriff and Robert E. Sheriff Faculty Chair in Applied Seismology also provides for the travel expenses of the holder's family. They also set up a scholarship through the SEG for international graduate students at U of H.

Bob Sheriff, a giant in the profession of geophysics, is fondly remembered by the legions of people who knew him personally for his friendliness, honesty, generosity with his time and considerable energy. His active career extended from the days of analog recording to the present day exotics of digital seismic analysis. He devoted a large proportion of his lengthy professional life to the dissemination of knowledge and understanding of applied geophysics. I feel that we have all been beneficiaries of Robert E. Sheriff's legacy.

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