

**D.W. Emerson AM, BE, MSc, PhD**



Don has given a long and extremely productive service to the Australian Society of Exploration Geophysicist (ASEG) from its foundation in 1970 until now for which he was awarded the Gold Medal in 1997. Some of the highlights of this time with ASEG were: 1973-75, Editor of the *Bulletin of ASEG* and again in 1979-80; 1977, President; 1979, Co-organiser of the first ASEG conference held in Adelaide in 1979; 1984-93, Editor of *Exploration Geophysics*. Don's contribution as EG Editor lifted the standard and content of our Journal to an international standing.

Don Emerson was educated at Waverley College where he was Dux of School in 1956. He (THEN) worked as a cadet, then field geophysicist, at the Geological Survey of New South Wales until 1965 when he joined the University of Sydney. In 1962), he attained a first-class honours engineering degree in applied geology at University of NSW and higher degrees in exploration geophysics (University of

NSW, 1966; University of Sydney, 1973). His Honours program included mapping an old army site south of Dubbo now the location of the Western Plains Zoo. His Master's work was on geophysical techniques applied to groundwater. His PhD was on the aeromagnetics of the Fraser Range region east of the Yilgarn Block Western Australia.

In 1993, he resigned from the University of Sydney after 28 years' service in the Department of Geology and Geophysics including five years as Head of Department (1987-1991), five years as Director of the Earth Resources Foundation (1988-1992), and five years as a member of the Advisory Board of the Geotechnical Research Centre in the Department of Civil and Mining Engineering (1988-1992). He continued his association with the University of Sydney as an Honorary Associate from 1993 to 2007.

Don was appointed as a Member (AM) in the General Division of the Order of Australia in 1993 for service to geophysical exploration.

He held professional memberships in the: Australasian Institute of Mining and Metallurgy (Fellow) - accredited Chartered Professional; Australian Society of Exploration Geophysicists (Honorary Member 1981); Geological Society of Australia; The Royal Society of NSW; Society of Exploration Geophysics (USA); Society of Petrophysicists and Well Log Analysts; the American Association of Petroleum Geologists and the Australian Geomechanics Society. He was convenor of the ASEG Research Foundation's Environmental and Engineering Committee.

Don engaged in widespread geoscience consulting and research activities in the minerals, petroleum, groundwater, engineering and environmental fields. He authored or co-authored many papers, mainly in exploration geophysics. His interests include geophysics, petrophysics, geotechnics, geology, mineralogy.

He was a director of several mineral and petroleum exploration companies, but later operated as an independent consultant. He retired to his property at Lower Portland on the Hawkesbury River northwest of Sydney and pursued an interest in the progress of geosciences from antiquity to the medieval period by studying Latin and Greek literature on the subject.

A listing of most of Don's publications can be found in the [ASEG website](#), including over 34 papers in *Exploration Geophysics* and many in *Preview*. Don commissioned and edited several major special issues in *Ex. Geo.* including the geophysics of the Elura orebody (Vol. 11 (4) 1980)- the first comprehensive mineral geophysics case history published by ASEG. Some of his articles in *Preview* adopted a particular theme on the properties of a single mineral including their geophysical responses. Some of these are: Lodestone (issue 173), Opal (185), Pyrite (203), Chalcocite (212), Garnet (215) and Bornite (220).

In reviewing his career Don emphasised his appreciation of many able people who encouraged and helped him. These include:

- (i) In the early stages; Laric Hawkins, David Pegum and Alan Day.
- (ii) In research and development; Dave Clarke, Phil Schmidt, Jim Macnae, Ken McCracken, Bob Smith, Ying Yang, Harold Welsh, Stuart Dryden, Dave King, Barry Long, Julian Vrbancich, Ted Tyne, Peter Williams, Gary Fallon, and Steve Webster.
- (iii) In providing a stimulating student, and subsequent professional, work dialogue; Mike Smith, John Bishop, David Falvey, Stuart Greenhalgh, Sue Jaggard, James Reid, Lisa Vella, and Bob Whitely.
- (iv) In mentoring and guidance on administration and management; Jack Harrison, Ken Richards, John Wardell, and Roger Henderson.
- (v) In assistance on editorial and publication matters; Lainie Kalnins, David Kalnins, Susan Franks, and Lisa Worrall.

Don was delighted to acknowledge his debt to these professionals, and to others not mentioned here.

Don's attitude to geophysics was that its aim is to solve or contribute to the solutions of geological problems by locating, defining (enhancing), and evaluating anomalies. His work was mainly focused on petrophysics, the interface between

geology and geophysics, where one endeavours to elicit an independent variable (the desired subsurface character) from a dependent variable (the enhanced field measurement). This can be difficult, but if all else fails then, in desperation, why not give divining a go? Don practiced what he preached as the illustration attests [see ASEG Preview #209, 2020, P48-57].

