

## **Biography - Prof. Dr. Helmut (Heli) Wopfner**

Professor Wopfner was born on the 26th of June, 1924 in Innsbruck, western Austria. After finishing high school late in 1941 he was called up for war service and served in the German air force as a pilot until April 1945, when captured by British forces in northern Germany. He spent 11 months in various British POW-camps in Belgium until his release in March 1946, after demobilisation he matriculated at the University of Innsbruck to study geology, petrology and palaeontology. As a returned soldier he was allowed to combine the subjects of two terms into one and commenced field investigations for his Ph.D. thesis in 1948. The subject was the investigation of a Late Cretaceous, synorogenic, clastic sequence, high up in the Lechtal Mountains in the north-west of Tyrol.

In January 1955 he married Dr. Inge Wagner, a botanist engaged in erosion control research. Heli and family left Europe in April 1956 to join Geosurveys of Australia Ltd in Adelaide on a four year contract to undertake oil exploration work on behalf of Santos Ltd., covering the company's licence areas in South Australia, Queensland, NW New South Wales and the Northern Territory. In 1956 Prof Wopfner identified the first folded structures in the Oodnadatta region and this led to the drilling of the well Santos Oodnadatta 1, which became an important reference section for the Eromanga Basin.

In March 1957 Prof Wopfner undertook an air and ground reconnaissance of north-eastern South Australia and western Queensland and discovered anticlines extending from Innamincka in South Australia to Warbreccan in Queensland. Subsequent mapping of these anticlines proved that they were actual fold structures enabling Prof Wopfner and Dr. Rudi Brunnschweiler to produce the first structural contour map of the entire Santos licence area in South Australia and Queensland. The map was published in the AAPG Bulletin, vol. 42/10 by Sprigg in 1958 and generated interest from oil exploration companies, leading to the partnership between Santos and the American independent, Delhi Tailor Oil Corporation and the drilling of the first deep well, Delhi-Frome-Santos Innamincka 1 in April 1959.

In 1960 when the Geosurveys contract finished Prof Wopfner joined the Geological Survey of South Australia and undertook many arduous field trips, often with Inge and their children, into the desert to explore the geology of northeastern SA and the NT. He guided the Premier of South Australia, Sir Thomas Playford and nine other participants, including the Director of Mines and the Managing Director of Delhi Australia, from Birdsville to Oodnadatta, proving the feasibility for seismic surveys in that region. In January, 1962 he was promoted to Senior Geologist in charge of the newly created Petroleum Geology Section of the SA Department of Mines. The role involved monitoring company exploration work as well as conducting independent research projects like the mapping of the Oodnadatta 1:250 000 map sheet.

Professor Wopfner was instrumental in ensuring that Delhi-Santos followed up gas shows in Gidgealpa 1 with a second well after drilling problems prevented testing of the first well with the backing of Premier Playford. Gidgealpa 2 discovered the Cooper Basin hydrocarbon province. After the Gidgealpa gas discovery, the Petroleum Geology Section and the Seismic Section were joined to form the Petroleum Exploration Division which Prof Wopfner headed as Supervising Geologist

until he resigned from the SA Department of Mines in 1973. He subsequently joined the University of Cologne as Professor of Applied Geology in 1972. Prior to leaving South Australia, Prof Wopfner was elected a Distinguished Member of the Petroleum Exploration Society of Australia and in September 1973 was awarded the Sir Joseph Verco Medal of the Royal Society of South Australia.

He worked as a consultant for Western Mining Corporation and returned to Australia every year up to 1982. Prof Wopfner's research at the University of Cologne concentrated on the economic potential, the tectono-sedimentary facies and the palaeoclimatic development of Permo-Triassic depositional sequences of Gondwana and Gondwana derived terranes. These included a five year study of the Permian succession and their base metal and uranium potential of the Dolomites in the southern Alps, a research project involving a study of nine years of the coal and hydrocarbon potential of the Karoo deposits of Tanzania and the Permo-Carboniferous glacial deposits and their amelioration sequences in Yunnan (western China) and Tibet. This was followed by a comparative study of Gondwana glacial deposit, the deglaciation event and the postglacial sequences in East Africa, Madagascar, Oman, the Himalaya and Tibet, south-west China, the Thai and Malay Peninsula and north-west Australia.

In 2001, 54 colleagues from every part of Gondwana (11 from Australia) prepared papers for the presentation volume "Contributions to Geology and Palaeontology of Gondwana in Honour of Helmut Wopfner" published on his 75th birthday. Although well into his 90s, Professor Wopfner continues to document the history of the early days of the petroleum sector in South Australia through DEM's Report Book series. Sadly Inge passed away two years and her descriptions of field trips have been included in some of the reports.