SMEDG Life Member Medal to Dr Jane Barron

Citation by Dr Garry Lowder

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SMEDG GOLDEN JUBILEE DINNER

For meritorious service to the exploration community of Australia and especially New South Wales, we are pleased to award a SMEDG Life Member Medal to Dr Jane Barron.

Jane is well known in the Sydney exploration community, where her expertise in petrology and mineralogy has been applied many times to the resolution of the geological enigmas that inevitably arise in the course of mineral exploration. Jane's background differs from most previous recipients of this award, in that she successfully made the transition from public sector geologist in the Geological Survey of NSW to the private sector, working as a consultant to the mineral exploration industry. In that role she has been able to apply her considerable skills to the benefit of industry participants hungry for an edge over their competitors. In doing so, Jane has added great value to the exploration industry by deepening field geologists' understanding of the mineralising systems they were dealing with.

Jane Barron is a Sydney girl who grew up as, in her own words, "a wild child", exploring the rocks and bush around Dobroyd Headland and Clontarf Beach. "Just be home for dinner" was the rule. This freedom was sharply curtailed when she was sent to high school at the girls-only Wenona school in North Sydney. There she was not able to study physics and chemistry – they were 'boys' subjects – but her rounded education at Wenona did introduce her to what would become her life's work.

Jane is a perfect example of the value of catching them young. Inspired by the teaching of A. James Lambeth, a veteran of mapping Heard Island, she discovered geology while at Wenona and quickly fell in love with this most fundamental of the natural sciences. She tells stories of many field excursions across the countryside and through barbed wire fences in school uniforms. Jane was one of quite a cohort of women geologists, inspired by Lambeth, who ended up in the Geological Survey of NSW.

From school it was off to Sydney University, where her adventurous spirit was given full licence by joining the Sydney University Speleological Society, which took her, among many other places, to the Nullarbor caves. Fifty years ago, women geologists and geology students suffered discrimination that would not be tolerated today – I'll leave it to her to tell you a bit more about that. But Jane thrived despite those barriers and her academic excellence carried her through to complete her B.Sc., with First Class Honours in Geology, in 1966.

In 1969 she joined the Geological Survey of NSW and began work as a petrologist. But academically, Jane wasn't done yet – while working in the Survey she returned to Sydney University to undertake a PhD, supervised by Tom Vallance. Her PhD research was focussed on the Sofala Volcanics and was completed in 1974. Jane continued to work at the Survey as part of a "Specialist Services Section", that included such notables as Erwin Scheibner, Ervin Slansky and, in due course, a newly arrived Canadian petrologist by the name of Larry Barron, who became her husband.

In 1979 Jane's professional life changed course when, after three children, she left the Survey and entered the private sector. There she began working with Garry Lowder, then a consultant petrologist himself. When he also changed course by moving from consulting to the corporate world in 1980, Jane, having by then developed expertise in hydrothermal alteration and its significance in mineral exploration, continued to offer petrological services to the mining

industry in her own right. Going from strength to strength, Jane's proficiency broadened as she focussed on conceptual models based on petrology, mineralogy, mineragraphy and structural geology.

Since then, over more than forty years, Jane has recognised and defined mineralising systems for epithermal, mesothermal and intrusive-related settings, including porphyry copper-gold deposits, as well as for orogenic-related mineralised vein systems. Gold and base metal mineralisation and their related metallurgy have been her principal focus but she has also worked extensively on heavy mineral sands that host titanium, gold, platinum group elements, tin, sapphires and diamonds. Jane is renowned for her innovative research on Australian and especially NSW diamonds, where she has collaborated with petrologist husband Larry. In all, Jane has been involved in over 1,700 projects from many countries, including Australia, of course, but also Russia, Canada, Chile, Ecuador, Brazil, Namibia, Mozambique and other African countries, New Guinea, Fiji, China and South East Asia.

Jane's list of clients reads like a Who's Who of the Australian and international mining industry, ranging from the world's biggest mining company, through oil companies to the all-important junior exploration sector, where so much ground-breaking new discovery originates. Over the years, her practical expertise in petrology and mineralogy has grown and extended beyond the mining industry *per se* to engineering geology and especially to geotechnical engineering problems, both within and outside the mining sector.

When not actively consulting to the mining industry, Jane has travelled widely. Ranging from New Zealand and Papua New Guinea, to Japan, Russia, Norway and Iceland, and from the Antarctic Peninsula to Greenland and Hawaii, Jane has seen at first hand many of the most iconic geological terrains on our planet.

These days Jane is less active in the mining industry generally but continues to indulge her research interests in the chemistry and petrogenesis of the platinum group metals from Alaskan complex-related placer deposits in Ecuador. Somehow, with all of this going on, Jane has found the time to publish widely and has made numerous presentations at international conferences. She is also currently a Visiting Fellow at the University of New South Wales.

Over many years, Jane has enjoyed immensely the challenge of providing her specialist's skills to industry. Like so many of us, she has found the conviviality of SMEDG meetings and events to be a prime source of inspiration, professional stimulation and lasting friendship.

It is a great pleasure and indeed an honour for me to present to you Dr Jane Barron, a most worthy recipient of this award and of the recognition from her peers that it represents.

Garry Lowder

August, 2022