Item for ASEG Newsletter

2021 Winner Richard Lane Scholarship

The winner of the inaugural Richard Lane Scholarship is **Zak Weidinger** from University of Tasmania School of Natural Sciences, Earth Sciences. Zak is undertaking an Honours degree in Geophysics and is to be awarded $5,000. Zak's supervisors are Dr Matthew Cracknell, Dr Clare Miller and Dr Michael Roach.

The new ASEG Scholarship has been established to support Geophysics Honours and Masters Students and to commemorate the life and work of ASEG Gold Medal recipient Richard Lane. The scholarship is open to all BSc (Hons) and MSc geophysics students and consists of a grant of $5,000 to the best ranked student for the current year. Ranking will be based on a 200 word discussion, overview of geophysics project and on academic transcript. For 2021 we acknowledge and thank the initial donation and concept from Jayson Meyers and Resource Potentials Pty Ltd.

The scholarship will be an annual event and donations to support the continuation of this scholarship are sought from institutions, companies and individuals. Information on donations via the ASEG Research Foundation can be found at www.aseg.org.au/foundation/donate Please mark donation specifically "Richard Lane Scholarship:"

Honours project description: In my Honours project I am using time-lapse or four-dimensional geophysics to image and characterise changes in internal flow-paths within an acid producing tailings dump in Royal George, Tasmania in the hope that a remediation solution can be found. The Royal George legacy tin mine closed in 1923 and has been leaching acid and metalliferous drainage, with the notable

inclusion of elevated Uranium, since. To characterise the internal flow-paths within the tailings I am using frequency-domain electromagnetics, gamma ray spectrometry, seismic refraction tomography, ground penetrating radar, electrical resistivity imaging and induced polarisation. These methods are accurately repeated to achieve time-lapse models and image change.

Why Zak is studying Geophysics (~200 word discussion): I am studying geophysics because I believe it to be an invaluable tool for many different disciplines as well as a fascinating field in its own right. I am passionate about both geophysics and the natural world and see geophysics as a currently underused tool for gaining insight into environmental issues in a non-invasive manner. This is why I chose to use geophysics to investigate AMD leaching for my Honours project.

My path to geophysics began with an interest in geology as a whole and then curiosity surrounding the seemingly magical methods of geophysics. I continue to thoroughly enjoy learning about, and applying my knowledge of, geophysics and I aspire to someday make outstanding contributions to the field of Geophysics; much like Richard Lane. Aside from its use for the natural world, I find geophysics to be a diverse and fascinating field in which there is great potential for utility and development. I wish to partake in, and contribute to, this development and push the application of geophysical methods to more diverse fields of study.