DETAILED RADIOMETRIC SURVEYING AT RADIUM HILL, SOUTH AUSTRALIA

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In June 2007 a ground radiometric survey utilising quad bikes, was conducted over the Radium Hill townsite, former minesite area and processing plant. An eight litre crystal pack was used along with an Exploranium GR-320 gamma ray spectrometer set to continuous (streaming) mode. A total of 148.8 line kilometres of radiometric data was collected over NS lines spaced at 100m intervals. Average ground speeds of ten kilometres per hour combined with the large crystal pack enabled good quality, highly detailed data to be collected on the ground over rough terrains. Data was continuously sampled at one second intervals and the entire survey was conducted in 10 days including mobilisation and demobilisation. The terrain was not suitable for large vehicles due to the danger of below surface mine adits, hence, the only alternative to surveying on quad bikes would be to survey on foot. It is estimated both that to get the same quality of data over this size survey area would require two operators 60 days, and also the use of such a large crystal pack would result in detailed data comparable with that derived from airborne surveys.

Technical Area: Mine site environmental and engineering geophysics