Contents

Preface vi
ADAMS, S. S. & PUTNAM III. B. R. Application of mineral deposit models in exploration: a case study of sediment-hosted gold deposits, Great Basin, Western United States 1
WALDUCK, G. P. Decision making under risk in the mining industry: a risk appraisal study 25
SCHAFFALITZKY, C. Recent developments on the classification of mineral reserves and resources 33
SAWYER, P. J. B. Assaying in resource evaluation: the need for a clear and open mind 37
KINGSTON, G. A. Mineralogy in the evaluation of ore deposits 47
ALLINGTON, R. & WALTON, G. Waste disposal, data collection and quarry design 61
BARRETT, W. L. A case history of pre-extraction site investigation and quarry design, Cliffe Hill Quarry, Leicestershire 69
MACCALLUM, R. Geophysical logs and the search for opencast coal reserves 77
WHATELEY, M. K. G. The evaluation of coal borehole data for reserve estimation and mine design 95
NORMAN, P. S. Evaluation of the Barapukuria coal deposit, NW Bangladesh 107
ARMITAGE, M. G. & ROBINSON, I. E. Sampling, grade control and ore reserve estimation at Renco gold mine, Zimbabwe: past, present and future 121
ONIONS, R. I. & TWEEDIE, J. R. Development of a field computer data logger and its integration with the DATAMINE mining software 125
HENLEY, S., TUCKER, D. K. & PALMER, Q. G. The use of integrated software techniques to evaluate a bedded clay deposit 135
HOWE, J. H. The application of DATAMINE in kaolin resource management 143
NORTON, J. The use of three-dimensional surface modelling in the design of mines and quarries 149
GRIBBLE, P. D. The application of computer software to orebody modelling and evaluation at South Crofty tin mine, Cornwall 155
NATHANAIL, C. P. & ROSENBAUM, M. S. The use of low cost geostatistical software in reserve estimation 169
COSTELOE, D. J. A critical appraisal of the Whittle 3-D open-pit mine optimization software package 179
DOWD, P. A. Geostatistical ore reserve estimation: a case study in a disseminated nickel deposit 243
DIERING, J. A. C. ONE-D: a program for one-dimensional composite optimization 185
FRANKLIN, P. J. Computerized grade control in complex porphyry copper deposits 191
SIDES, E. J. Reconciliation studies and reserve estimation 197
DAVIS, J. G. Grade control for Australian open pit gold mines 219
ROYLE, A. G. A personal overview of geostatistics 233
ANNELS, A. E. & INGRAM, S. The application of geostatistically controlled elliptical weighting techniques at Boulby potash mine, Cleveland 257
RAVENSCROFT, P. J. Recoverable reserves estimation by conditional simulation 277
FAUNES, A., FORKES, J. & O'LEARY, J. Ore reserve estimation in Los Pelambres, a Cilean porphyry copper 289
WALDUCK, G. P. Qualitative modelling: fractal geometry in mineral deposit evaluation 299
Index 307