
Preface

This book is about resource modeling. It explains important issues; it describes geological and statistical tools used in resource modeling; and presents case studies for illustration. The main intent is to avoid strict theoretical presentations, and focus on practical adaptations that result in good resource estimation practice. An understanding of the intrinsic limitations and weaknesses of the techniques and resulting models used is critical to success in resource modeling.

This book fills a knowledge gap in the mining industry. There are many books available that describe geostatistical methods for resource estimation, but they tend to emphasize theory, and provide few or no guidelines for the necessary adaptations in practical applications. Those books generally dwell in geostatistical theory with more detail than this one does. On the other hand, there are a few “practical” resource modeling books, but they are either not comprehensive enough or do not contain enough theory to support or justify the methodology and procedures recommended. We attempt to balance both aspects.

Our target audience is geologists and engineers; either students in advanced undergraduate or graduate studies, or professionals just starting out in resource estimation. These are the professionals that are most in need of learning from other people’s experience.

We have attempted to collect and reflect in this book good resource modeling practices; not only from our own experiences, but also from those that we have worked with through the years. In the global mining industry, this includes mentors and colleagues from different parts of the world. It is thus also a reflection of working relationships and friendships forged through the years.

We have a debt of gratitude with many colleagues, too many to be mentioned here. Specially, those with whom we have shared many hours over light tables, computer screens, and in healthy discussions about modeling and other things. But in particular we would like to acknowledge BHP Billiton, and in particular Rick Preece, Global Practice Leader, Geology and Ore Reserves, BHP Billiton Base Metals Operations, for facilitating BHP’s financial support of this project, and constant encouragement.

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Rossi, M.; Deutsch, C.V.

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