

Mineral Property Evaluation: Handbook for Feasibility Studies and Due Diligence

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Less than 30% of the projects that are developed in the minerals industry yield the return on investment that was projected from the project feasibility studies. The tools described in this handbook will greatly improve the probability of meeting your projections and minimizing project execution capital cost blowout that has become so prevalent in this industry in recent years.

Mineral Property Evaluation provides guidelines to follow in performing mineral property feasibility and evaluation studies and due diligence, and in preparing proper documents for bankable presentations. It highlights the need for a consistent, systematic methodology in performing evaluation and feasibility work.

The objective of a feasibility and evaluation study should be to assess the value of the undeveloped or developed mineral property and to convey these findings to the company that is considering applying technical and physical changes to bring the property into production of a mineral product. The analysis needs to determine the net present worth returned to the company for investing in these changes and to reach that decision point as early as possible and with the least amount of money spent on the evaluation study.

All resources are not reserves nor are all minerals an ore. The successful conclusion of any property evaluation depends on the development, work, and conclusions of the project team.

Mineral Property Evaluation Handbook Testimonials

*The key to conducting detailed feasibility studies and due diligence examinations is to ask a million questions because each project has unique issues, challenges, and attributes. Many have attempted to quantify this complex exercise, but without success. As always, Richard Bullock does not disappoint. This important work, Mineral Property Evaluation: Handbook for Feasibility Studies and Due Diligence, is destined to become the educational standard on this subject. If you are new to this field, you should memorize each page. It provides concise details, excellent figures and tables, and interesting historical anecdotes to emphasize important concepts. If you are a regular practitioner, this handbook should reside on your favorite bookshelf because it will become a well-worn reference as its short overviews refresh your knowledge. If you are an old-timer, you will enjoy how Richard has extracted the essence of this subject matter. **Douglas B. Silver**, Portfolio Manager, Orion Mine Finance, SME Distinguished Member and 2017 Keynote Speaker*

In 2011, Dr. Bullock delivered a Jackling Lecture that reset the way we think about feasibility studies. One thing was clear from his lecture: the industry desperately needed standards and guidelines with respect to feasibility and due diligence studies. In this handbook, Dr. Bullock and his coauthors have not only solved that dilemma but once again set the standard for mining textbooks.

As is pointed out in the handbook, there are many national standards pertaining to resources and reserves, but most of these codes and guides have only a few sentences or paragraphs of guidance when it comes to the rest of what goes into the engineering of feasibility studies. This important text needs to be used as a guideline to accompany VALMIN, JORC, NI 43-101, and Industry Guide 7.

*In addition to being important, it is easy to read and even includes some humor. Whether you are a junior in engineering or a seasoned professional, you will enjoy this well-written guide, brought to you by world-class experts in their respective topics. This belongs in the library of all geologists, engineers, and financiers doing any type of feasibility or evaluation work in the mining industry. **Timothy D. Arnold**, Vice President Operations, Pershing Gold Corp., SME President 2016.*

In this handbook consisting of 20 chapters, Dr. Bullock gives a comprehensive integration of all aspects of mineral property feasibility analysis through due diligence. The many complicated

economic, social, environmental, and financial considerations are covered in great depth, including the risk of an investment as a mine project evolves temporally through different stages. With his deep, prolonged experience in performing feasibility analyses around the world, he threads experiences on projects throughout the handbook, which is an invaluable contribution to understanding the intricacies of doing thorough mine project evaluations. In his career, he was not only adept at doing the analyses, but also, as the Quenon Chair at the University of Missouri-Rolla, now Missouri University of Science and Technology, he imparted his expertise to many students who now work in the mining industry. This handbook will provide expert guidance and information for professionals who will pursue feasibility analyses in the future. **R. Larry Grayson, Ph.D.**, Retired Deike Chair and Professor, The Pennsylvania State University, Professor Emeritus, Missouri University of Science and Technology, Retired Professor, West Virginia University.