

Specialist mineral resource consulting services for the global exploration, mining and investment communities

Z* have the experience and skills to analyse and value mineral assets.



Z* Principal Analysts have extensive experience in the evaluation of a range of mineral projects, from greenfields exploration to producing mines, coupled with a good understanding of the operating environment in Africa. Z* will undertake independent valuations of exploration projects, feasibility projects or operating mines in any country in the world.

VALUATION CODES

Mineral Asset Valuation Codes exist in South Africa (SAMVAL), Australia (VALMIN), Canada (CIMVAL) and there are International Valuation Standards (IVS). Z* professionals undertake valuation of mineral assets to comply with any of these codes.

SOURCES OF INFORMATION

Valuation is often required for deposits where there are no defined mineral resources and reserves and where only limited data is available. A valuation history can be very useful, in particular where the valuation method is clearly documented and where commodity prices etc. have been included. Regional geology provides the setting for possible mineralisation and information related to neighbouring mines can be very informative. A good understanding of the local laws governing exploration and mining, in particular with respect to licencing and tenure is essential.

MINERAL ASSET VALUATION

THREE APPROACHES TO VALUATION

There are three key approaches to valuation (earnings, cost, market), which are applied to three main categories of mineral properties and these are defined as follows:

Exploration Properties are those on which an economically viable mineral deposit has not been demonstrated to exist. The real value of an exploration property lies in its potential for the existence and discovery of economically viable mineral deposit. Only a very small number of exploration properties will ultimately become mining properties, but until exploration potential is reasonably well tested, they have very little value.

Development properties are those on which an economically viable deposit has been demonstrated to exist by a Feasibility Study or Pre-feasibility Study, but is not yet financed or under construction. Such properties are at a sufficiently advanced stage or are former producing mines. There is enough reliable information available to value the property by discounted cash flow methods, with a reasonable degree of confidence. In general, such information includes reasonably assured mineable reserves, workable mining plan and production rate, metallurgical test results and process recoveries, capital and operating cost estimates, environmental and reclamation cost estimates, and commodity price projections.

Production Properties are mineral assets that are in production.



Z Star provide robust assurance of mineral resource estimates and conduct risk analyses on existing mines or new projects. The company will undertake due diligence audits, resource performance analysis and provide governance advice.

Services include:

- comprehensive geostatistical estimation service
 mineral asset valuation
- sample optimisation
- data validation
- geological modelling
- statistical analysis

- Competent or Qualified Persons Reports
- classification of mineral resources
- size frequency distribution modelling
- geostatistical simulation

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