COURSE DESCRIPTION

The recent downturn has shown that operational flexibility and strategic adaptability are critical to the long-term success of many mining companies. The early planning stages of a mine project (i.e. before completion of the feasibility study) typically provides the greatest scope to explore alternatives, assess risks and implement change in order to minimise overall project costs. Once the ground has been broken, the alternatives available to engineers and operators diminish exponentially.

Discounted cash flow ("DCF") and the associated net present value ("NPV") techniques have traditionally provided the major tools for project evaluation. However, these techniques merely provide a static view of the project and, from a valuation perspective, largely disregard cash flows beyond a certain period (maybe as little as five or six years). The ability to secure financing for both development and acquisitions has also been reduced and where available, it is expensive.

Understanding how the lack of flexibility impacts the valuation of projects also permits an objective approach to determining optional levels of gearing.

"Current valuation methods have no scope for assessing any increases in capacity... The way that we value mining assets today undervalues their upside potential" (Australian Financial Review – April 18-19, 2009).

In general terms, when an option exists to acquire a new or operating mining project, the owners and stock holders need to know the value of the mining project, which is the fundamental criterion for making final decisions about going ahead with the capital venture.

INSTRUCTOR

The workshop is entirely run by Dr. Luis Martinez (General Manager and Principal ROMPEV Pty Ltd.).

Dr. Martinez is a mining engineer with over 15 years of experience in mine engineering, geostatistics, risk analysis, and project evaluation. He holds a Doctorate in Economics and Finance, specialising in "Strategic open pit mine project evaluation using real options and allied econometrics". He also holds a Masters Diploma and a Master of Science from the WH Bryan Mining and Geology Research Centre, in mine project evaluation under geological uncertainty.

He has published and presented numerous papers on project evaluation under uncertainty and risk, optimisation and strategic risk management, most recently presenting at Mine Planning 2011 - Antofagasta – Chile; 35th APCOM – Wollongong - Sydney, and the VALMIN Series - Perth, Australia, Ulaanbaatar – Mongolia, Trondheim – Norway, and Lima – Peru.

AUDIENCE

The course will be of particular interest to: mining managers and analysts, resource/reserve analysts, geologists and engineers working in the mining industry, fund and asset managers working in the mining industry, bankers investing in natural resources, development planning engineers, exploration managers, and, other professionals involved in the evaluation of mining projects.

All attendees are required to bring their laptops with administration privilegies

Registration includes course notes, lunch and morning and afternoon tea. Participants receive a Certificate of Completion

PRIMER IN OPEN PIT MINE PROJECT EVALUATION & DECISION MAKING – A REAL OPTIONS APPROACH

A 3 DAY APPLIED WORKSHOP

VENUE:
HILTON HOTEL, BRISBANE, QUEENSLAND
119 ELIZABETH STREET
BRISBANE, QLD 4000
10 – 12 OCTOBER, 2012

INSTRUCTOR:
DR. LUIS A. MARTINEZ TIPE
GENERAL MANAGER AND PRINCIPAL,
ROMPEV PTY LTD.

SPONSOR:

ROMPEV "Improving your Expectations" ADVANCED FINANCIAL & PROJECT EVALUATION

OVERVIEW

The aim of this 3-Day course / workshop is to introduce the concepts of real options and decision making valuation methods in open pit mine project evaluation as complement of traditional DCF analysis, and demonstrate that it provides a viable alternative technique for strategic mine planning, design and evaluation in the face of uncertainty.

Purpose and Scope

- The process followed to plan and design an open pit mine project from the block model to the project economics;
- The process followed to estimate key project indicators such as the net present value ("NPV") and internal rate of return ("IRR"); and
- The process followed to perform a quantitative risk analysis – Monte Carlo simulation – on final project indicators.
- Assessing the effect of grades (for metals) or ash quality (for coal mine projects) on project value.
- Assessing the effect of metal/coal prices on project value based on more detailed models for price forecasting such as the GBM and MRM.
- A conceptual understanding of how real options analysis adds value to mine projects.
- Insight into how important aspects of project structure, such as managerial and operating flexibility and operating costs, influences project risk - adjustment and value.
- A demonstration of the basic managerial / operational real options available to managers and mine planners / analysts such as: Option to defer, Option to abandon, Option to switch, Option to expand/contract, Option to grow, and Option to stage.

COURSE STRUCTURE

The course will be characterised by a dynamic process where the attendees will have the opportunity to practice the application of ROA using a 2-D block model. The topics to be covered in the course / workshop are:

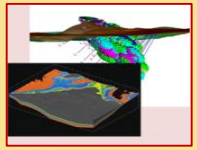
- **Base case mine plan and design**

➢ Block model Estimation - general review

➢ Open pit mine plan and design

➢ Production scheduling

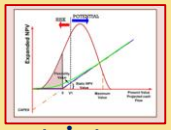
➢ Cash flow analysis and NPV



- **Identifying main sources of uncertainty**

➢ Sensitivity analysis

➢ Prioritising sources of uncertainty



- **Quantifying identified sources of uncertainty**

➢ Conditional simulation as tool to quantify metal grade uncertainty – introduction.

➢ Binomial lattices as tool for quantifying future metal price uncertainty – introduction.

- **Real options analysis - Introduction**

➢ Option to defer,

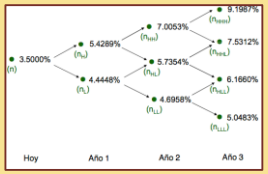
➢ Option to abandon,

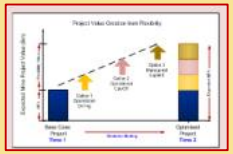
➢ Option to switch,

➢ Option to expand/contract,

➢ Option to grow,

➢ Option to stage.





REGISTRATION DEADLINE
SEPTEMBER 30, 2012

Send registrations to: Luis Martinez
(ROMPEV PTY LTD, 4/15 Riverview Terrace
Phone/Fax: 61 7 3720 0621
Email: lmartinez@rompev.com
Register online: www.rompev.com
Course Fees: $3100 (+ GST)
If two or more attendees from same company: $2950 (+ GST)

Title___Name_____

Job Title_____

Company/Employer_____

Postal Address_____

City_____Prov / State_____

Postal / Zip Code_____Country_____

Phone_____Fax_____

Email_____

Payment: Make payment to:

BANK: Citi Bank Australia Ltd
NAME OF ACCOUNT: Rompev Pty Ltd
BSB 242 200
ACCOUNT: 470718065
Send by email or fax the transfer confirmation to
lmartinez@rompev.com
postmaster@rompev.com
Fax: 61 7 3720 0621

Notification of cancellation received in writing up to September 30, 2012 will incur a 20% cancellation fee. No refund will be made after this time. An alternative participant may be nominated