

ACCURATE PRODUCTION PREDICTION GUIDING BUSINESS DECISIONS

By

Michael Gorzechowski

Heathgate Resources, Australia

Presenter and Corresponding Author

Michael Gorzechowski

ABSTRACT

Heathgate has been mining uranium for the last 23 years using the unique and low impact in-situ recovery (ISR) method. The company has produced millions of pounds in the past and is looking to produce millions more in the next 10 years. To continue business growth the company applies latest methods and technology to generate accurate insight towards future planning. In the next 2 years the company is undergoing it's biggest expansion, which has all been planned out by Heathgate's internal expertise.

To generate accurate insights into the future, there needs to be a reasonable amount of confidence, competency and accuracy in the modelling processes. There are some fundamental parts to predicting ISR production, one is the design of the production curve, the other the software to predict the operation.

There are many inputs that contribute to the makeup of the production curve design, some have more influence than others, but in the end, all are important for that accurate design/estimation. This presentation will highlight some of those key inputs and how they influence the production curve design, all of which are used to test the economics of future production before being used for Life of Mine (LOM) planning.

Production forecasting using the decline curves is done with an in house custom ISR software PathCAD. PathCAD has been designed to cover all aspects of the ISR operation, including: planning, analysis and forecasting. Heathgate has been using PathCAD for last 12 years, during which the program has provided accurate short- and long-term production estimates for planning and insight into business decisions. PathCAD's reliability comes from the well calibrated constraints within the program that provide a true simulation compared with reality.

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