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## Q+A : Mark Bowater – Author of “Crimes Against Mine Planning”

This week in a slight change from usual proceedings I have cast my net slightly wider, to talk with Mark Bowater, discussing his new book “Crimes Against Mine Planning”. Mark is a seasoned mining engineer and discusses the classic pitfalls that engineers and operations fall into when creating and delivering their plan. Whilst Mark’s experience has covered more surface operations, the book and his insights are relatable for those working across the mining landscape!

This short Q+A session covers some of the motives behind Mark’s latest editorial endeavor and explains a little more about his journey through life.

### 1. Who are you?

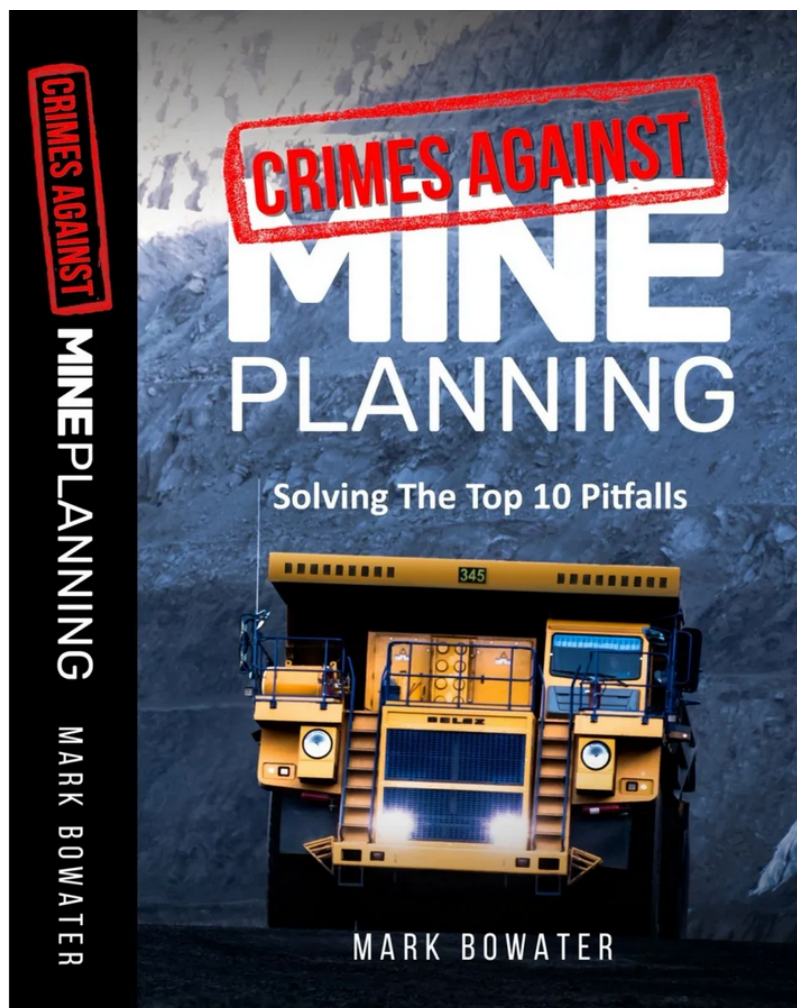
Mark Bowater – Australian mining engineer

### 2. What is your story?

I’ve been open cut mining in coal and hard rock since 1989 and carried out a range of engineering and management roles at Rio Tinto and Thiess, until leaving employment in 1999 to start my own mining consulting company. I grew that to 30 consultants before selling it in 2012. I then left the industry for a few years and bought a locksmith company that I still own today. But the calling was strong and so I returned to mining in 2016 carrying out part time consulting. In 2020 I decided it was time to “work on the industry” instead of “working in the industry” and set out to challenge mine planning processes with the aim of leaving it in a better place than I found it 30 years ago. I started out with writing a range of articles on LinkedIn that have been very well accepted and so progressed from there to writing a book.

### 3. What has inspired you to write this book?

I have a very good mate who coaches accountants and has written 4 books, he has been telling me for a long time that I should write a book. But I'm an engineer, give me a spreadsheet any day, I hate writing and so I ignored him for a long time. But eventually I came to the conclusion that if I wanted to make an impact on mine planning, I had to write a book (or worse still, more than one). I think there are a couple of elements at play here, firstly getting the education out there to a wide range of mining personnel about why mine planning doesn't work and some thoughts on how to get it working. But maybe more importantly, I am hoping the credibility of being an author gives my voice additional weight so that when I argue for change (such as a move to stochastic scheduling), there is a greater chance of it being taken seriously.



*Mark's book came to life after the success of his earlier online blog posts covering Mine Planning insights.*

#### **4. For those who may be intrigued by your title, why is this an essential read?**

Open cut mine planning is a broken model, I believe it has been the entire 30 years I've worked in the industry. I can't speak for underground, but a few people who work in both open cut and underground tell me that mine planning underground is no better than open cut mine planning. From an open cut perspective, I believe we definitely meet the definition of insanity, we continue to do the same thing and expect a different result. We roll out mine plans on a ridiculously frequent basis and with an unwavering belief that they are correct and can be followed. I discuss what I believe are the ten largest issues with mine planning that I have observed in Australian open cut mining, why they occur and provide some suggested solutions. While these issues and the stories and examples are all open cut related, much of the discussion is about mine planning process and I believe mine planning is mine planning, whether it's open cut or underground, hard rock or coal, Australia or Namibia. So I do think readers who have anything to do with mine planning or implementation in underground will get something out of the book.

#### **5. As an industry leader in mine planning, what else do you think the industry could focus on to improve operations?**

It's not just about the mine plan, I think what is even more important is the execution of the plan. Now that starts with a good mine plan – one that can be relied on as it is built on solid assumptions, it can be implemented, a plan that identifies the key points and one that is well communicated and that everyone gets behind. But then execution of the plan starts with understanding the plan and all its flaws, just because it has been calculated to three decimal places and is circulated far and wide, doesn't mean it is right. In fact it is wrong and it is wrong before it has even gone to print – the high degree of variability in every element of mining ensures that. In the book I have a chapter dedicated to executing the plan and focussing on the interaction between tasks rather than the tasks themselves.

**6. If you were stuck in a refuge chamber for 7 days what item would you most like for your own comfort and sanity?**

Fortunately, I've managed to avoid hotel quarantine over the last 2 years, so I'm not speaking from experience here. But, I think the solitary confinement would do my head in, so I reckon I'm going to want something to keep myself entertained. So assuming there is light to see with, the first thing that comes to mind is a deck of playing cards. There's heaps of versatility in the number of solitaire games I can play, card towers I can build, card throwing challenges, etc. It would go a long way towards keeping my sanity.

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Thank you so much to Mark for this Q+A session and for penning a book that is so urgently required by the mining industry. His insights and simple broken-down references in "Crimes Against Mine Planning" make for an essential read for all of those in the mine engineering world.

I shared this around the team at my current mining project, and I look forward to even better mining rates and conformance to the plan as a result!

If you would like to download the free ebook, or purchase a copy for your office please follow this link: [www.markbowater.com](http://www.markbowater.com)