Graphite laid bare

A crowd of about 170 packed the mezzanine level at Perth's Novotel Hotel for the inaugural Australian Graphite Conference. The programme included 14 presentations and an insightful panel session to round out proceedings

Whether or not all the graphite sector's unknowns were revealed at the inaugural Australian Graphite Conference in March, one thing is for sure; the conference has found a place on the mining events circuit.

"I think there will be a hell of a lot more people here [in 12 months time], people will be more educated and a hell of a lot more people will be talking about expandable graphite next year," IMX Resources Ltd managing director Phil Hoskins said.

If Hoskins' predictions ring true, he may well be the lynchpin behind the 2017 conference.

"From a company point of view, we would have completed our funding, off-take and finance deals with the Chinese, we will have completed our DFS, which would have only taken six months and we would be looking to commence construction based on peer comparisons of similarly staged projects," he said.

Hoskins is leading the proposed IMX spinout, Graphex Mining Ltd, which is due to list this month upon raising $4.25 million (up to $7 million).

Making the task hard for Hoskins is that participants in the graphite sector are experiencing the same pain as their counterparts in other commodities; poor pricing courtesy of oversupply in the market.

It will be interesting to see the attention garnered by Graphex, particularly as the oft-maligned graphite sector continues to divide opinion.

Not helping the graphite enthusiasts at the moment is the failure of Triton Minerals Ltd in Mozambique and Valence Industries in South Australia.

The demise of Triton and Valence, for different reasons, is not ideal for a sector which remains misunderstood.

"We are out there at the moment trying to raise money for an IPO and it has no doubt put a dent in marginal investors in their decision on whether they want to pop into graphite or not," Hoskins said.

"But I don't think Triton and Valence have anything to do with the graphite industry per se or any of their projects. From an industry perspective, if it changes anything from an individual company's point of view, it doesn't eliminate but it slows down one of the competitors, but from an overall industry point of view it is a problem."

Hoskins' comments were made during the closing panel session chaired by **Paydirt** editor Dominic Piper and involving CSA Global principal geologist Andrew Scogings, Patersons Securities resource analyst Jason Chesters, Metals of Africa Ltd managing director Cherie Leeden, Kibaran Resources Ltd managing director Andrew Spinks and Talga Resources Ltd managing director Mark Thompson.

No doubt investors would have concerns about the graphite industry considering the plight of both Triton and Valence and while graphite sceptics remain wary, aspiring developers and producers now have fair warning about the potential pitfalls ahead.

"The issues they [Valence] faced highlighted a number of risks and those risks can create a number of failures and learnings for graphite hopefuls," Chesters said of Valence's attempt to rejuvenate the historic Uley mine.

"Operational expertise, particularly in graphite, is vital and getting that in as early as you can is a key advantage. The second element which applies to both companies [Valence and Triton] is that graphite is a small, niche market. It is entrepreneurial and I think you have to maintain a small sector, small company mentality through this phase. I think you need to be careful that you don't get ahead of yourself and I think that is what has tripped up a few of these companies."

The shortcomings of Triton and Valence have cast more doubts about the industry, however, it is important to note – and a point emphasised at the Australian Graphite Conference –that "not all graphite is created equal" and all companies face different propositions.

Should more brownfields operations fall in a heap due to technical difficulties and companies fall apart through mismanagement, companies would, of course, feel more pressure to prove the viability of their business cases.

This is nothing unusual for mining companies, however, the intricate nature of the graphite sector, which is characterised by its many categories, makes selling a graphite story all the more difficult.

But, if not all graphite is created equal not all graphite stories are the same which hopeful companies can use to segregate themselves in a space seemingly set to become overcrowded.

China is the major producer of graphite, producing about 74% of the 1.1mt of global natural graphite in 2014 and has capacity to fulfil its needs in the foreseeable future.

However, the growing pollution problem in China has seen Europe and the US introduce new legislation which enforces the use of material compliant with strict environmental standards can be sourced from China.

Thompson said graphite – a key ingredient in battery manufacturing – was "becoming very political" and any material rejected from China wouldn't be wasted in-country.

"I am seeing from my travels that they [China] are going to get very, very parochial and their own materials are going to be kept which would then starve the rest of the world," Thompson said.

The influx of companies into graphite around the world suggests an abundance of graphite – in all flake sizes – exists and consumers won't have to rely on China for material.

"Clearly what we are seeing is that there is going to be two graphite markets; domestic supply for the Chinese and the rest of the world," Spinks said.

"Clearly, that is what we have experienced around the world and clearly that is the opportunity for us to compete. I agree with Andrew's [Scogings] comments that China has an enormous amount of spherical graphite and enough of their own domestic demand, but really the opportunity is graphite for the rest of the world.

"They want qualities that are of an environmentally high standard and we are going to see more closure of their [China's] mines; the ones that are environmentally unsustainable and toxic," he said.

Diversity of supply away from China is plausible for environmental reasons plus tapping other supply sources will also create competition in the market.

"When it comes to price negotiation [it is important] that there are alternatives and you're not held to the current Chinese supply chain," Chesters said.

"Panasonic are making battery packs and are sourcing their anodes from Hitachi which is getting spherical graphite from a Chinese company using Chinese flake from a Chinese mine. This supply chain is clearly through China, so having diversification of supply is a key commercial aspect."

China produces the lion's share of global natural graphite at ultra-low prices which can be matched in places such as Mozambique and Tanzania, where Australia is well represented.

In the short-to-medium term, ASX-listed Syrah Resources Ltd is shaping up as one of the players about to have an imminent impact on the global graphite sector.

Many believe the introduction of Syrah's graphite from the Balama project, Mozambique, will cancel out much of the competition in the space.

Syrah recently signed a three-year offtake agreement with Marubeni Corporation to supply 20,000 tpa of flake graphite for traditional applications in Japan and Korea.

The Marubeni deal is just one of a number of agreements Syrah has in place for its graphite.

Syrah is certainly leading the graphite race and will be first over the line to production, but this is not seen as a deterrent for the cluster of ASX hopefuls in its wake.

Sticking with the mantra that "not all graphite is created equal", Hoskins knows where Graphex fits into the global graphite equation and is comfortable that there is not only room for his new vehicle but also others.

"With graphite being an industrial mineral you should not force your material down any particular route, your material should really drive you to the sort of characteristics about which markets it's amenable to," he said.

"Fortunately, our expandability results have been exceptional to date. That is not to say we are forcing our way down there, it's a way to differentiate ourselves and more so for the different flake size categories. It is a market that we will get more for our large flake or smaller-medium flake which we'll get paid more for going into expandable graphite – that goes into a flame retardant building material – than we would for spherical graphite for batteries. I think we have to be very careful to throw a blanket on graphite prices; there are different prices for different markets, as they're all different flake sizes."

Hoskins agrees that China can cater for additional demand for graphite in the battery space, with Syrah providing a good foil for battery makers.

Leeden, whose Metals of Africa graphite plays in Mozambique abut Syrah's project, said the latter's elevation to producer status would "put a lot of existing producers out of business because their opex is so cheap".

"I think they are creating a mine with a view that once they are in production they are going to put people out of business by building their mine," she said.

Being in close proximity to Syrah, the prospect of M&A is something Metals of Africa can't ignore.

"It is in their best interest not to take us out because a lot of the end-users we are seeing on site are requesting multiple producers of a similar product. Some are looking for exact Syrah product and most battery producers are looking for three, four and five producers, so I think competition is helping the market," Leeden said.

Leeden's thoughts on M&A were somewhat duplicated by her East African peers – IMX and Kibaran in Tanzania.

Hoskins is concentrating on launching a new company and said consolidation in graphite was meaningless if it was about having the most tonnes, while Spinks believed tie ups now would be difficult and problematic because the market is so small.

"I think there is more chance of multiple operations coming in on diversification rather than consolidation in the traditional market where the opportunity for consolidation means new technologies," Spinks said.

"The strength in supply and having a supply chain out of Tanzania for the battery market and other emerging markets is what we are seeing for graphite supply. That is another opportunity and I think this is a fantastic forum to explore that as well."

With many companies also boasting to have the best graphite on the block, egos may play a hand in preventing M&A for the time being.

If graphite prices are currently near the bottom that would suggest a good time for consolidation but neither Scogings or Chesters saw any uplift in graphite prices in the short-term. Spinks is optimistic that prices would rise 10-15% by the time the Australian Graphite Conference rolls around again in 2017.

A lack of new mines coming on stream in the next year or so could trigger a price spike, but that is unlikely.

"I think there will be a hell of a lot more people here [in 12 months time], people will be more educated and a hell of a lot more people will be talking about expandable graphite next year.

One thing which is likely in the next 12 months though is that the sector and investors will have much more data to interpret in terms of growth rates and development, technological development in the battery sector and expandable graphite.

"From a pricing perspective I am not that optimistic on price recovery, other than the recent sharp movement down which may be cyclical in nature and we may see a recovery from these lows," Chesters said.

"In general, I don't see much of a price rise in the next 12 months. The oversupply situation still has a way to go, so we are in a bit of a difficult environment from a pricing point of view in the short term anyway."

– Mark Andrews