

# Almonty to position as China tungsten output plateaus

It seems that the tungsten market is getting tighter. Prices for ammonium paratungstate (APT) have been firming, and that is also the case with ferro-tungsten. Buyers have apparently become concerned that Chinese supply of both mined tungsten concentrate and ferro-tungsten are stalling at present levels and the chance of lower price quotes disappearing.

But it is not before time, given the poor prices that prevailed in late 2015. A report last month by Brisbane-based broker Morgans noted that “driven by economic growth in China, the concentrate price rose to above \$300/mtu (metric tonne unit) in mid-2011, before weakening below \$170/mtu in late 2015, to \$200-225/mtu now”.

When considering the planned combining of tungsten miner Almonty Industries Inc. (TSXV: AII) and ATC Alloys (ASX: ATA), this is important to remember. Almonty will offer one share for every 10.38 ATC shares held.

The new tungsten company will hold an interesting line-up of projects. These include Almonty properties that comprise:

- The Los Santos mine in Spain, acquired in 2011 and which produces tungsten concentrate.
- The Wolfram Camp mine in Queensland, Australia, acquired by Almonty in 2014 which produces tungsten and molybdenum concentrate.
- The Panasqueira mine in Portugal, in production since 1896, and producing tungsten concentrate.
- The Sangdong mine in South Korea, which was historically one of the largest tungsten mines in the world and one of the few long-life, high-grade tungsten deposits outside of China.

- The Valtreixal tin-tungsten project in North Western Spain (now holding 51% with an irrevocable option to acquire a 100% ownership.)

These assets will now be joined by

- ATC's 60% joint venture interest in the Vinh Bao ferro-tungsten plant in Vietnam, one of the largest and most advanced ferro-tungsten plants outside of China.

Here we should note a comment by my colleague Christopher Ecclestone, of Hallgarten & Co. of London; he was writing in a recent report on the subject of rare earths processing in Vietnam, but it is equally true of other metals including tungsten. As he noted, Vietnam has shown itself to be aggressive in courting industries where, while it cannot offer raw materials, it can offer *conversion* of metals and minerals at competitive prices. Moreover, it has a geographical advantage: it is centrally located, close to end users and not too great a distance from the sources of raw materials.

The move by Almonty and ATC should be seen as part of the (very slow) recovery by Western producers in the tungsten space. China flooded the world with tungsten in the 1980s – more than 60 mines in other countries were forced to close, an extraordinary figure even at this distance of time. According to the recent note from Morgans, in 1986 the APT price was one sixth of the 1977 price, and one-third of the 1973 price. For more than 15 years, the concentrate price was stuck at U\$50-60/mtu.

But now the tables are turning – although only slightly at this stage (but enough to give Western producers heart). In its most recent presentation, Almonty says the supply-demand situation is in balance in the near-term but is expected to tighten over the next five years. While pointing out that China remains the dominant producer with, in 2013, control of 82% of the world supply (with 95% of China's output controlled

by one company, Minmetals), it adds that “some Chinese tungsten mines are reaching the end of their life and new projects in the country are expected to only replace existing production or allow for a small amount of growth in Chinese domestic supply.” This, with global tungsten consumption expected to grow at a compound annual growth rate of 3.5% through 2018.

“With minimal growth in domestic supply, China is likely to further reduce exports and increase imports of tungsten products to ensure domestic demand is satisfied,” says Almonty.

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## **Tungsten Downunder**

I was prompted to revisit this theme due to a nifty transaction in recent days that Almonty Industries Inc. (TSXV: AII) managed to pull off. Almonty, of course, is the consolidator in the industry and one of the assets it corralled into its corner in recent years was the Wolfram Camp mine. Now it has folded this mine into a listed Australian company with the effect that it ends up with a majority of the Australian company, the main asset of which is a brand new Ferro-Tungsten plant in Vietnam. Ergo, Almonty moves into the midstream part of the Tungsten space.

When I did my mine-trip to Spain last November there was much talk on site about the the Wolfram camp mine but I did not write it up at the time as production at the Wolfram camp mine is currently on hold pending the completion of the optimization of the milling circuit that is in its final phase of completion. On completion, which is anticipated to be before the end of June 2016, mine production is expected to

resume and ramp up to full capacity in a matter of weeks.

The back story here is that Almonty picked this mine from the German “fund” Deutsche Rohstoffe, which I highlighted last year for other reasons. At that time it had already sold out to Almonty and become a large shareholder in Almonty as a result. The mine that the Germans sold is in the state of Queensland and is located approximately 130 kilometres west of Cairns. The points to note on this are:

- Fully permitted open-pit tungsten mining operation
- High-quality mine infrastructure
- Commercial production achieved in November, 2013
- Production of approximately 40,000 metric tonne units of tungsten oxide in 2015
- Four-year mine life with substantial exploration potential

### **The Latest Deal**

Earlier this week Almonty announced it had signed a binding heads of agreement to sell the Wolfram camp mine in Queensland to ATC Alloys Ltd (ASX:ATA), formerly known to Tungsten mavens as Hazelwood until a name change earlier this year. Indeed, one of the reasons this significant deal did not fire up Almonty’s price, when it should have, was that many did not know that Hazelwood had changed its name to ATC and thus even people who know the space did not cotton on to the enormity of this combination.

The proposed consideration is 120 million fully paid ordinary shares in ATC at price of five Australian cents per share, or AUD\$6mn, plus the assumption of intercompany debt owed to Almonty by Wolfram Camp Mines.

Following the acquisition, Almonty will become the largest shareholder of ATC with an ownership interest of approximately 53% (based on the issue of the consideration shares) and will be entitled to appoint two members to the board of ATC.

Completion of the acquisition is conditional on:

- Completion of due diligence by ATC and Almonty
- Finalization of legal documentation
- ATC shareholder approval
- ATC completing an equity raise of at least AUD\$6mn
- Third party lender approvals
- Other statutory, regulatory and other approvals that may be required by the parties

### **What is ATC?**

In May 2010 Hazelwood acquired a majority interest in Asia Tungsten Products Company Ltd (ATC), which has recently completed the construction of a new ferrotungsten refinery near Vihn Bao in Vietnam. Stage one of the ATC Ferrotungsten Project has a nameplate capacity of approximately 4,000 tonnes of ferrotungsten alloy per annum, equivalent to 3,000 tonnes of contained tungsten per annum (at 75% minimum tungsten content). This is the largest ferrotungsten plant outside of China and its design is believed to be the most advanced in the world.

The ATC Ferrotungsten Project will initially commence operation as a refining business and it is planned to vertically integrate the refinery with Hazelwood's Australian tungsten projects to decrease the reliance on third party feedstock (tungsten concentrate) and improve product quality.



ATC has signed an exclusive agency agreement with Wogen Resources Limited for the distribution of ferrotungsten worldwide for an initial period of five years. Wogen, which primarily engages in the physical trading of specialty metals and minerals and the processing of metals and alloys, is one of the big names (but scarcely known to the general public) in the specialty metals space.

The combination of the ATC's ferrotungsten plant in Vietnam with the Wolfram camp will create a significant tungsten mining and downstream processing business and potentially have implications for Almonty's Sangdong asset in South Korea. Frankly we can see a path to ATC eventually combining with Almonty at some point.

## **Carbine Tungsten**

This company has become a tungsten concentrate producer in recent times from its flagship project, the Mt Carbine tungsten mine, in far North Queensland. Its goal is to become a producer of tungsten concentrate through its Tailings Retreatment Project which commenced production in 2012 along with the re-awakening of the Hard Rock open-cut mine which is scheduled to commence production in 2016.

Mt Carbine was discovered at the end of the 19th Century, and was a major tungsten producer in the past. The deposit is still relatively unexplored and the company feels that there is potential for new tungsten mineralisation in the Mining Leases and surrounding exploration tenements. When it last operated between 1973 and 1987, the Mt Carbine mine produced exceptionally high grade concentrate, and was in the lowest quartile of cost of production for global tungsten producers.

The Mt Carbine tungsten mineralisation is similar to several other large tungsten deposits around the world, for example some of the deposits in southern China, Spain and southern UK (Hemmerdon), in that it is low grade (the grade of the inferred hard-rock resource at Mt Carbine is 0.14%W<sub>3</sub> at a cut-off of 0.05% W<sub>3</sub>). However, at current low prices this ultra-low grade deposits are going to need to wait for a much more robust price for APT (the main traded Tungsten mineral).

Meanwhile the tailings will, wisely, be the focus. It is anticipated production from the tailings will be 50 tonnes of W<sub>3</sub> per month (5,000 metric tonne units or MTUs per month).

We would note that this company should not be confused with Carbine Resources.

### **King Island Scheelite (ASX:KIS)**

One to keep an eye out for is this company that is reviving one of the largest Tungsten mines that ever operated which is located on a island in the strait that separates Tasmania from the Australian mainland. In recent times the company has been working towards a revised DFS on its project with a view to reopening the mine.

### **Conclusion**

Onwards and upwards, it seems with the recovery of Tungsten mining on the Australian scene. We have looked at the three main players here and this should be enough to keep things bubbling and make Australia an interesting player again without busting the market with an excessive flow of product.

Prices have perked up for the main traded Tungsten mineral (APT) since bottoming in January at \$150. The move in recent weeks has been accelerated.

01 Apr 2016	170	185
08 Apr 2016	175	190
15 Apr 2016	190	200
<b>22 Apr 2016</b>	<b>188</b>	<b>210</b>

It's still a fair way to go until we can say happy days are here again. It's worth noting that we have a rather bullish target price of \$325 per MTU for the end of 2016.

Almonty are certainly, to steal Donald Trump's thunder masters at the "art of the deal". The transaction with ATC is yet another example of this. With Wolfram Camp ready to start producing product for the Vietnamese plant we are seeing here the beginning of the erosion of Chinese dominance (even in Asia) over this highly strategic metal.