

# HALLGARTEN & COMPANY

## Initiation of Coverage

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## Tri-Star Resources

(LSE: TSTR)

Strategy: Neutral

Price (GBP)	£0.365		
12-Month Target Price (GBP)	£0.35		
Upside to Target	-4%		
High-low (12 mth)	£0.235 - \$0.62		
Market Cap (GBP mn)	35.3		
Shares Outstanding (millions)	96.7		
	<b>2018</b>	<b>2019e</b>	<b>2020e</b>
Consensus EPS		n/a	n/a
Hallgarten EPS		-£0.001	£0.00
Actual EPS	-£0.03		
P/E	n/a	n/a	n/a

# Tri-Star Resources

## The Need for Feed

- + Production at smelter in Oman is nearing a form of normality (though well below nameplate) after a few false starts
- + One of the very few exposures to Antimony available in public markets, even if not vertically integrated
- + The company has an interesting Sb deposit in New Brunswick in Canada on which it has done no work for half a decade
- + Chinese are potentially losing their dominance of the Antimony market
- ✗ Antimony price plunged this year from over \$8,000 per tonne down to around \$6,000 in a dramatic change of fortune
- ✗ Tri-Star has a supply issue. It is dependent upon non-Chinese Sb miners, many of whom are artisanal, to provide it with raw material
- ✗ There are few non-Chinese producers (and none of substance beyond Mandalay Resources) and China is vigorously competing for their product
- ✗ Company has allowed its mining project in Turkey to slip away
- ✗ Successive financings have left the company with one dominant institutional shareholder

### The Many Lives of Tri-Star

In the beginning there was a mine, albeit in Turkey, and that was good (at least in the market's estimation). Indeed such was the market's estimation that the company once had a market capitalization of nearly GBP80mn when the mine project was the sole asset.

Then the management went *off-piste* and decided that mining was not their thing (aided and abetted by the price of Sb having gone into a precipitous tailspin). The new strategy was to build an Antimony roaster in Oman where energy was cheap and the sovereign wealth funds were large and enthusiastic.

The philosophical basis for this strategy was that the world is in need of clean and efficient roaster technology which is outside the control of the Chinese who currently are the only major provider of roasting conversion globally. The Chinese plants, in Tri-Star's estimation buy Antimony concentrate at half the metal price, and then produce the metal and Antimony Trioxide (the premium product). Tri-Star claimed that the Chinese work on a conversion margin of around US\$6,000–\$7,000 per tonne. Such were the calculations though at the top of the Antimony price surge, since then the price has more than halved and the Chinese margins have been left skinny indeed.

The process of building and funding the roaster took the best part of this decade with the target being a 60,000 tpa roasted output. The fact that the global Sb market was around 169,000 tpa meant that the

roaster was targeting obtaining all of the Western world's Sb mine output and, curiously, a large chunk of China's output. This was not likely to happen.

The ore-sourcing problem was then compounded by the plant's siting on the Indian Ocean which is not close to the metal's current supply sources, with prices falling what little Western mine production that there was ended up closing. In particular, the Consolidated Murchison mine in South Africa fell victim to closure, removing one of the prime sources targeted to supply Oman.

When the plant finally did get into its trial phase, a mishap in late 2018 resulted in the lining of the roaster having to be replaced with attendant loss of output and time.

In the meantime the long-time CEO fell by the wayside and successive fundings shrunk the held by Tri-Star in the roaster. The mine project in Turkey was let go in 2019.

In this note the company shall review the most recent developments, results and how things might evolve.

### **Some Background**

The company was originally called CANISP PLC and was listed on the AIM in London in 2010 with the goal of acquiring a Turkish mining asset. The company folded into the listed entity was Tri-Star which had been incorporated on 7 August 2008. Tri-Star at that time is 90% owned by Vehbi Eyi, with a 10% interest held by Nizamettin Coban who had been connected with the previous owner of the mining licence. Vehbi Eyi was the father of Emin Eyi, an investment banker/broker, who became the CEO of the new listed entity.

The underlying asset was the Göynük antimony mine located in forested and ruggedly mountainous terrain in western Turkey, approximately 30 kilometres east of the city of Gediz district in Kutahya province. Despite a history of more than a hundred years of intermittent artisanal production, the Göynük deposit had been poorly explored and was perceived to have possibilities as an economically viable open-pit antimony deposit.

The Göynük Mine is a low temperature, low sulphidation and epithermal deposit, containing Antimony and Arsenic, along with traces of gold.

The deposit is exposed in an erosional window beneath an overthrust conglomerate unit. The deposit had not been traced out laterally or to depth by drilling, and the overall shape and size were undetermined. Past production focused on the richer stibnite pockets and chimneys. Sampling of outcrops, drifts and waste piles suggested that the remaining host rocks contained, in places, more than 0.5% Sb and that if higher grade pockets, balls and chutes comparable to past production existed in unexplored portions of the deposit, overall grades may average greater than 1% Sb. The problem with this thesis is that these grades are exceptionally low in comparison to any other producing Antimony mine of our knowledge.

Over the years work was undertaken to prove up more resources and to formulate a mine plan. To our understanding, Vehbi Eyi died in the last two years and with focus having switched to Oman the asset was put up for sale. This sale was completed in early 2019, for a total cash consideration of USD \$0.5mn (of which USD\$0.1mn being due on first product sales from the mine).

### **The Roaster**

Early this decade the company resolved that just being a miner in Turkey was to undershoot the potential that a more vertically integrated structure might bring. The goal was to go from mining right through to the end customer for flame retardant products so as to capture the entire margin.

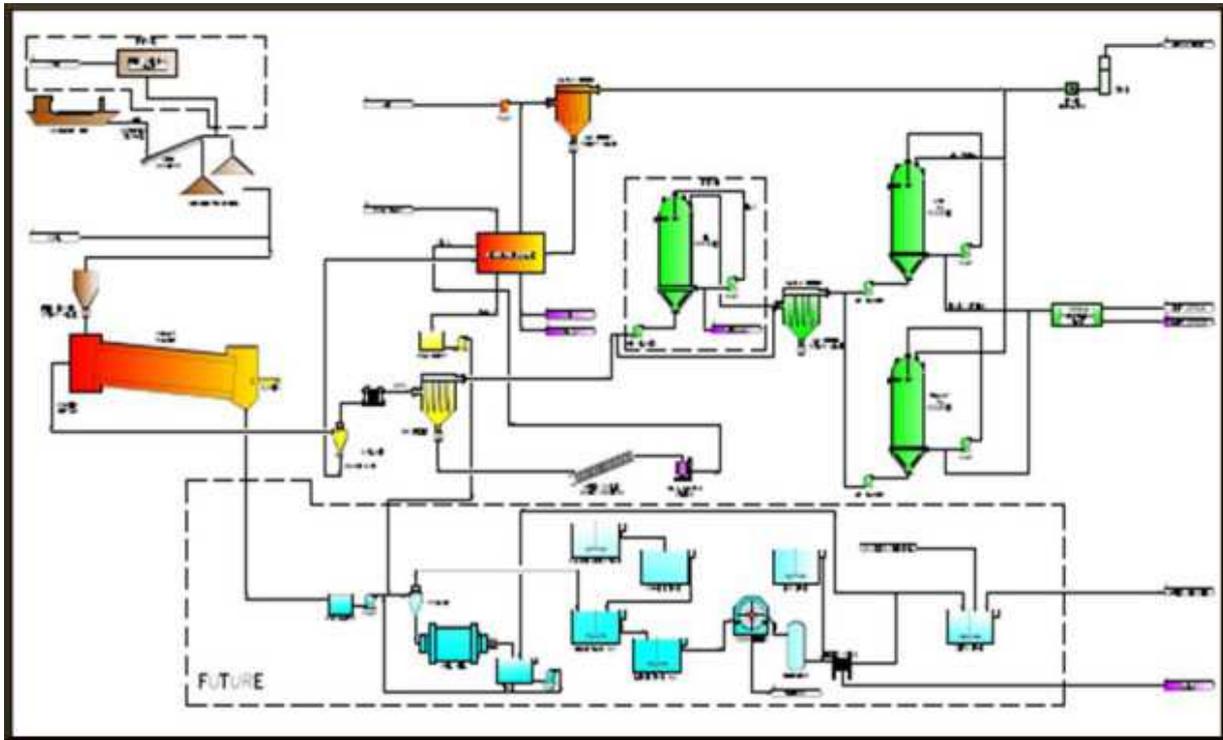
However, a business cannot be properly fully integrated if the upstream and the downstream are not even vaguely comparable in size. Thus the first plan (to mine Göynük) was to exploit a relatively small mine in Turkey. Then the plan became one of building a massive roaster in the Persian Gulf region and to take product from whoever would supply it. This was not vertical integration due to the massive asymmetry of the upstream and downstream aspects. Then in the final wash, the mine went by the wayside, the company became all downstream and could not then find enough throughput ore for its oversized capacity. Thus it has gone out of the frying pan into the fire and ended up burnt (literally).

### **The First Iteration**

The first plan was to construct an Antimony roaster in the United Arab Emirates (UAE) due to that country being “strategically located for the important markets of India, Indonesia and Malaysia”. The facility was to be located on an industrial park which lay within an hours’ drive of three large ports. The UAE was looking to encourage emerging business to establish which are not dependent on oil and offers big incentives which includes a nil tax rate.

The problems with this are twofold, first Indonesia and Malaysia are not major markets for Sb end-products (where did they get that idea?) and secondly, no consideration was given to access to a source of ore which is more important than where the end buyers would be. It’s better to transport ore short distances and value-added products longer distances and this is a universal rule not just one pertaining to Antimony. No-one had seemingly divined that there were few (if any) sources of Antimony ore around the Indian Ocean. Burma has upcountry Sb ore which is smuggled into China and the Cons Murch mine in South Africa was shuttered just as Tristar got its roaster (eventually) into operation. Oops....

But we have jumped ahead, for in July 2011, the company announced a Memorandum of Understanding for the construction of a 20,000 tonne per annum Antimony metal and tri-oxides finished products facility in the UAE. Tri-Star and its then local partner Union International Holdings Group intended to form a new company in the Free Trade Zone of the Emirate of Ras Al Khaimah (RAK) in the UAE which would be owned 90% by Tri-Star and 10% by Union. In October 2011, the management announced that environmental clearance had been received for the roaster.



The capital cost was estimated at \$60mn for an EU-compliant plant. Consultants GBM added a working capital figure of \$63mn, which was based on the company having to buy 10,000tpa from third parties when it believed that 50% was to be the company's own production (from Göynük).

The plant was to use all off-the-shelf technology and at the heart of the process was a 10 metre long roaster. GBM suggested that the roaster would have a NPV \$240mn based on a roaster margin of \$3,000 per tonne, which was less than half the (supposed) cost of Chinese roasters. Low operating costs are due to a guaranteed supply of low cost energy and no taxes payable in UAE.

The company claimed the UAE facility would represent the first new antimony roaster that has been build outside of China for the past forty years, which probably did not take into account several in Turkey nor that of US Antimony in Mexico.

The logic of any Persian Gulf project for an Antimony roaster is driven neither by access to supplies of ore, nor of siting of end users. The UAE roaster plan had a 25-year lease on the site as well as a gas supply agreement with RAK IA at Al Ghail Industrial Park. The drivers were thus access to MidEast money (particularly sovereign wealth funds) and to cheap and abundant natgas for the roasting process.

### The Second Iteration

In July 2014, the plan of going with the UAE as the roasting site was switched to the Sultanate of Oman, further down the Persian Gulf. Tri-Star formed a joint venture company, Strategic & Precious Metals

Processing LLC (SPMP). Tri-Star was to own 40% of SPMP, which has been established to build and develop the roaster project and it was announced that it had secured a lease on a 22 hectare plot for the development of the roaster in the Port of Sohar in Oman.

The SPMP Project was intended to be the largest antimony roaster outside of China and, according to the company, the world's first 'Clean Plant', designed to EU environmental standards. The Oman plant also had a targeted capacity to produce in excess of 50,000 oz. of gold and 20,000 tonnes per annum in combined Antimony metal and Antimony Trioxide (ATO).

The joint venture agreement was with Oman Investment Fund and Castell Investments Ltd. The SPMP was thus incorporated in the Sohar Free Trade Zone in Oman. The Sohar FTZ was being developed into a major regional and international hub for the downstream processing of metals and minerals. It is served with important logistical nodes, including its close proximity to the Port of Sohar, and low energy costs. The fiscal regime for Sohar FTZ companies was also attractive with a zero corporation tax rate provided that certain Oman national employment levels are achieved.

Under the Shareholders Agreement, the shareholders will own and control SPMP in the ratio 40% by Tri-Star Resources, 40% by OIF and 20% by Castell. SPMP's board of directors was initially comprised of seven members, three of which were to be appointed by OIF, two by Tri-Star, one by Castell and one jointly by Tri-Star and Castell. Key strategic and operational decisions of the joint venture required the unanimous approval of all JV parties.

The initial funding structure was to include at least US\$30mn of project finance to be raised from local and regional banks. A number of banks in Oman had provided indicative loan financing terms even at that early stage. It was clear that a "full court press" of economic agencies in Oman had been mobilized to make this project happen.

The balance of the capital cost of US\$30 million to US\$40 million was expected to include a mezzanine loan of US\$10mn from OIF, with the balance to be provided as equity by the Joint Venture Parties over the construction phase of the project.

After various iterations, Tri-Star now has a 40% shareholding in SPMP with the other joint venture partners being The Oman Investment Fund (40% equity holder) and DNR Industries Limited, part of Dutco Group in Dubai (20% equity holder).

### **Supplying the Roaster – Original Conceptions**

As mentioned, the 20,000 tonnes per annum of Antimony feed that the original concept mooted was supposed to be supplied 50% from Tri-Star's own mines and joint venture partnerships (being mindful that these were not producing). The remaining concentrate would "probably" come from South America and Australia.

At the time 20,000 tonnes of Antimony represented 14% of world consumption.

The board expected that its 10,000tpa of its own production would come from: Canada 4,000 tpa, Turkey 4,000 tpa and 2,000 tpa from joint ventures elsewhere in the world from countries such as Peru, Bolivia, Australia. The remaining 10,000 tpa was to come from third party suppliers. However, the company cautioned that it did not know of significant Antimony deposits, such as in Africa, that could form part of its feed matrix to fulfil the remaining volume required for the roaster.

Antimony is well known for occurring with other metals such as arsenic and lead; and in South Africa and Australia Antimony typically comes with 2-3 g/t gold. With concentrates planned to come from all over the world, the roaster was designed to take a wide range of ore with a variety of impurities or by-products. Detailed lab test had been conducted on a number of producers' ores from many countries of the world to ensure that the roaster would be able to deal with such a variety of feedstock.

In June 2017, thinking had moved on and Tri-Star announced that SPMP had signed a multi-year agreement with Traxys Europe S.A. to supply antimony and antimony gold concentrates to SPMP's roaster. Under the agreement, Traxys would act as a supplier of concentrates and direct shipping ores as feedstock for an initial term of five years from the first shipment. The cost to SPMP was to be based on the purchase contract cost incurred by Traxys plus an agreed sourcing fee and transactional expenses. The raw materials would be delivered to and warehoused by Traxys until required by SPMP.

### **Production – Trouble in Paradise**

In line with the “new broom” theory the current management has stated that “the SPMP team has made good progress in the first half of 2019 with the operational problems inherited by the new leadership being largely resolved”. Blaming the outgoing management is somewhat unfair but standard practice.

As mentioned earlier there was a major furnace malfunction that ended up burning out the lining of the roaster, or so the scuttlebutt in the trade would have it. The company clearly did not think financial market participants need “bother their pretty heads” over such technicalities. The exact timing of this debacle seemed to be in late 2018 but only favoured parties seem to be privy to this information.

Remedial works were undertaken to resolve technical issues, which included modifications to the Calcine Furnace and the installation of a new gas handling system. The Calcine Furnace has been operational since early May 2019, resulting in the first on-specification gold doré being produced during August 2019.

Material handling at the roaster had been highlighted as a plant feed bottleneck. In the short term, this was overcome by utilising a rented crushing circuit while a permanent solution was being designed and installed.

The Antimony Reduction Furnace has been operating satisfactorily on low power input since 3 July 2019 after hearth and rectifier modifications. Mechanical design problems, relating to the downstream Rotary Converter and the associated ingot casting machine, received priority attention as these were

restricting the production ramp up in this section.

SPMP remains focused on ramping up production to reach its targets. Accordingly, it has produced antimony metal at a grade of 99.54%, which is the minimum grade required by some companies in the acid battery market. It is now concentrating on reducing further the impurity levels in its output with the near-term target being 99.65%, which is the industry standard.

Additionally, SPMP is producing gold doré at over 5% concentration and in sufficient quantities for sale. SPMP expects the concentration to increase further as production ramps up over the next few months..



*Source: Tri-Star*

The company announced on 19 August 2019, antimony metal quality was 99.11% and that SPMP was confident in achieving the 99.65% commercial grade, shortly, that can be sold into the acid battery market.

The company is now focussing on moving to full scale commercial production. The company has claimed that “subject to the successful completion of the current financing round” it expects to reach 50% of design capacity “by mid-2020 and 100% of capacity by the end of 2020”.

The company claims to have received expressions of interest from potential customers equal to almost double the annual output of 20,000 tonnes of antimony metal or its Antimony Trioxide. This is not surprising as we would expect Western end-users to be keen to diversify away from their reliance on the currently dominant Chinese suppliers of antimony and antimony trioxide.

### Antimony – Critical or Strategic or Both?

Antimony is a strategic metal used to harden lead in ordnance and lead-acid storage batteries.

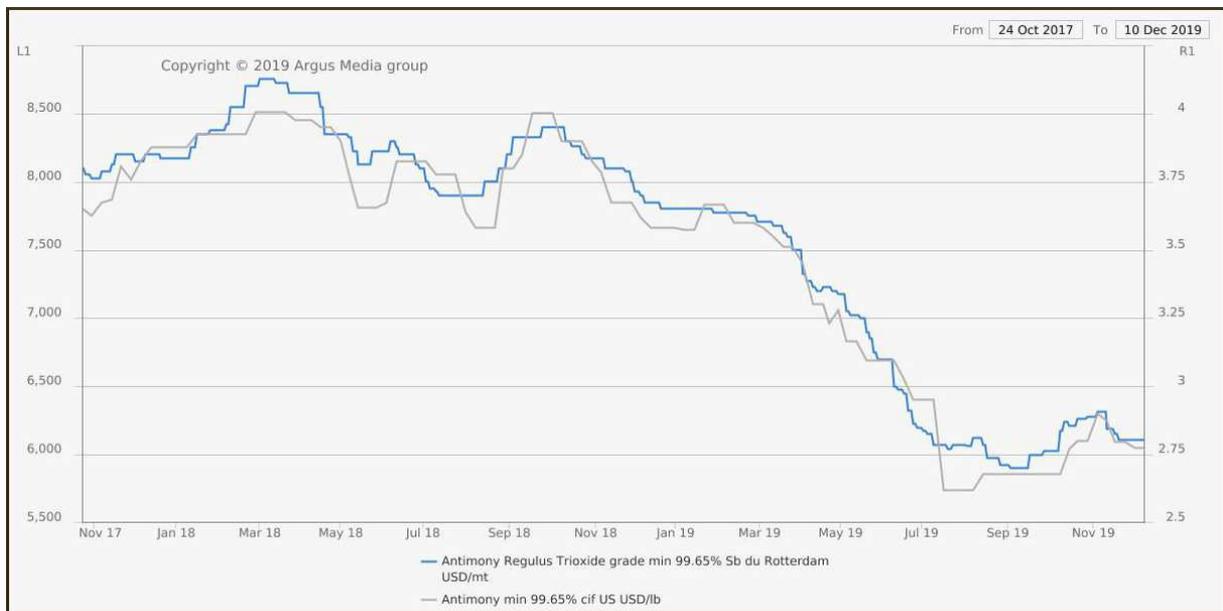
Antimony Trioxide is a fine, white powder that is used primarily in conjunction with a halogen to form a synergistic flame retardant system for plastics, rubber, fiberglass, textile goods, paints, coatings and paper. Antimony oxide is also used as a color fastener in paint, as a catalyst for production of polyester resins for fibers and film, as a catalyst for production of polyethylene phthalate in plastic bottles, as a phosphorescent agent in fluorescent light bulbs, and as an opacifier for porcelains.

Sodium Antimonate is primarily used as a fining agent (degasser) for glass in cathode ray tubes and as a flame retardant. Antimony Trisulphide is a major component in primers for all center-fired ordnance.

Antimony production is around 169,000 tonnes per annum with an annual growth rate of 1-3%.

### Antimony – a Wild Ride

After a swoon that lasted several years, and sank the prospects of several Antimony wannabes, the price of Antimony started to uptick in 2016. It got to around \$8,500 per tonne and then plunged again to around \$5,800 on stories that the metal was about to be put in the penalty box by the EU and some American states. This was linked to supposed toxic properties when used in fire retardants.



Source: Argus Metals

This was further complicated by the ever-looming liquidation of the FANYA stockpile, which amounted to around 19,000 tonnes, which was finally sanctioned by Chinese courts over the summer. The latest talk in the trade is that now the FANYA stocks have been bought by one of China's largest Sb producers.

Prices appear to have bottomed and are rising on the back of low inventories, low production and revived restocking in the West.

The average Rotterdam price for Antimony metal during Q3 2019 was \$6,022.91 per metric ton or \$2,731 per pound. It remains around US\$6,000.

### **The Chinese “Dynamic”**

It is rather too easy to get sucked into the truism that China rules the world when it comes to specialty metals. In fact we prefer to see this as a transitory reality than a permanent phenomenon. To gain the dominance that it has achieved since the 1980s has come at a very high environmental costs and moreover has involved frequently selling scarce resources at a loss. This too has been the situation with Antimony.

Antimony can be viewed as a special case. Chinese has had at its disposal since the 1500s the world’s largest Antimony resource in the form of the Twinkling Star mine. This was mined for hundreds of years to meet Chinese needs and then was ramped up after the Chinese Revolution. Since the 1950s, Twinkling Star has made up 30-40% of global Antimony production. This, plus a plethora of small mines and many “backyard” roasters, and a predatory pricing policy that crushed Western producers since the 1980s helped China achieve over 90% of global processing of Sb and over 80% of mine production.

However since 2010 this has gone into steep decline. Brutal over-exploitation of all internal resources, the mass closure of irregular smelting and the dwindling economics of Twinkling Star have resulted in Chinese primary production of Antimony ore falling to 60% or below. The exact number is unclear due to the deliberate opacity of statistics. Ostensibly to outside observers China still dominates the metal because it has hoovered up artisanal production from around the world to make up the shortfall and still controls over 90% of roasting and thus production of Antimony Trioxide. The appearance of lingering dominance is a key strategy of the Chinese government or else China can then no longer call the shots in this key metal.

### **Potential Suppliers**

The fatal flaw at Tri-Star might be its need for feed. Since the Chinese torpedoed the Antimony price in 1984, in a massive effort at predatory pricing, most of the Western World’s Antimony production has been shuttered, disassembled and withered into obscurity. There was a brief flurry earlier this decade when the price broke free and soared to around US\$14,000 per tonne but then withered back to under \$6,000 per tonne in recent times.

This brutal strategy achieved longer Chinese dominance of a space they were already very strong in (largely because of their ownership of the epic Twinkling Star Mine) and now the sole remnants of Western production are the Costerfield Mine in Victoria, Australia (an Au-Sb mine owned by Mandalay Resources) and the on-again efforts of United State Antimony (see our recent note) with various small mines in Mexico.

The prime mines waiting in the wings are:

- Consolidated Murchison in South Africa (now supposedly owned by Stibium, an unlisted Australian entity)
- Beaver Brook in Newfoundland (owned by Hunan Non-Precious)
- Hillgrove (owned by Meridian Capital out of Hong Kong)

However, ConsMurch, an iconic mine by any measure, is now at great depth and very expensive to mine. The focus (if any exists) seems to be the working of potential new areas near surface and maybe dumps. Neither seems as if they will provide the type of flow that Oman requires. In the past (pre-2015) ConsMurch concentrates were sent to India for processing.

Beaver Brook is reputedly being looked at by the Chinese for reactivation after they bought it earlier this decade and immediately mothballed it as a “market-controlling” mechanism. That they should never have been allowed to buy it in the first place has still not dawned on Ottawa. In any case, if this is reopened the product will most definitely NOT be going to Oman but back to the Chinese mothership.

Hillgrove has been on-again-off-again since the 1940s. It is a Sb-Au mine in northern New South Wales. After various attempts at spinning it out early in the decade by Straits Resources (now Aeris Resources) it was bought by a Hong Kong group and they, as a stop-gap measure, started sending ore all the way across the Pacific to United States Antimony’s Madero Roaster in Mexico’s uplands for tolling. This was a step reeking of pure desperation and came to no good with Hillgrove once more being shuttered and the relationship with UAMY being terminated.

Beyond these three there is nothing noticeable going on in the Sb development space. The declining Chinese production of Antimony ore is being plugged by raking in artisanal ore from the like of Burma, Laos, Honduras and Bolivia.

Burma is an interesting case in point as conceivably being on the Indian Ocean it might be a source of ore for roasting in Oman. Long mired in civil war, the rebel tribes in the north of the country stumbled upon artisanal Sb mining as a good way to pay for guns and a growing tide of material, in recent years, has made its way to China across the unsupervised border. DERA, the German equivalent of the USGS or BGS, has estimated that up to 14,000 tonnes was exported (smuggled?) from Burma in 2011. There are two negative dynamics for Sb supply here. The first is the obvious one that artisanal mining is almost always the easiest pickings and when the task involves declining grades or going underground or creating deep open-pits for extraction then the effort peters out. These rebels were clearly over-exploiting whatever resources they had to hand, which is a recipe for a steep drop-off in production at some point.

More interesting though is the gradual opening of the Burmese economy and political stabilization. With

the recent signing of accords between the government and some of the most prominent rebel groups this could put an end to artisanal pillaging of the metal supplies out of Burma and put the trade on some sort of more professional (and regulated) basis. That could mean (if Tri-Star's JV is nimble, and their pricing keen) that they might be able to corral some of the Burmese output for themselves. But again we doubt the Chinese will let this happen.

The company claimed recently that it had secured, subject to contract, agreement "for the supply of approximately one third of the feedstock required for 2020 and is in discussions with other suppliers for the balance". This implies 6,000-7,000 tonnes per annum. This begs the question on the balance because the "rest" is either Chinese or artisanal material over which Tri-Star will have to slug it out with Chinese buyers. We would also note that Antimony ore with gold content is only a small subset of the total Antimony ore universe.

### **Earnings and Outlook**

On the following page can be seen the financials of the company as reported. With SPMP being a minority position for Tri-Star the contribution from that source is recorded as "Loss by an Associated Company". This provides an extra layer of opacity as the sales revenues, margins and other non-operational issues are not revealed and all we get is TSTR's share of those results. Unless Tri-Star is prepared to publish SPMP's account we shall remain permanently in the dark.

Antimony prices only started a faint recovery in the last quarter of 2019. Meanwhile TSTR only announced meaningful production from SPMP in the second half of 2019. It is unlikely that this would have been profitable but we really have no way of knowing. With our presumption that Antimony Trioxide prices will end the year 2020 somewhere closer to \$7,000 per tonne than the current zone around \$6,000 gives some hope for a small positive result in the next FY.

We dare not venture thoughts on 2021 or beyond for SPMP due to the lingering doubts on its ore supply situation. We do feel however that Sb prices will head closer to \$8,000 in 2021 or indeed even breach that level. This lays the groundwork for better results in Oman IF the company can solve the supply issue.

Therefore we are looking for a continued loss in FY19, but acceptable at around negative GBP135,000. For FY20 (in the absence of production and supply information) we are venturing a small profit of around GBP40,000.

Neither of those projections represents a good return on a market cap around GBP35mn. The missing component here is scale. At 20,000 tpa the roaster could be turning over in excess of \$160mn per annum at Sb prices of over \$8,000 per tonne. On top of that there might be gold revenues as well. All of these remain purely theoretical without guaranteed reliable supply sources for the entire capacity.

Additionally the company (or rather the JV) might find itself doing toll roasting to keep its capacity utilisation levels up.

## Tri-Star Resources

GBP (mns)

	FY20e	FY19e	1H19	FY18	FY17	FY16
Total Revenue						
Cost of Revenue, Total						
Gross Profit	0.000	0.000	0.000	0.000	0.000	0.000
Selling/General/Admin. Expenses	0.660	0.685	0.328	0.787	0.871	0.766
Share based payment	0.620	0.430	0.211	0.580	0.135	0.066
Interest Expense(Income)	0.160	0.180	0.084	0.624	1.333	1.978
Extinguishment of debt	0.000	0.000	0.000	0.000	3.637	
Revaluation of asset	0.000	-2.000	-1.657	-0.29	-0.06	
Loss (Profit) by Associated Company	-1.480	0.840	0.612	0.31	0.04	0.77
Total Operating Expense	-0.040	0.135	-0.42	2.00	5.96	3.58
Operating Income	0.040	-0.135	0.42	-2.00	-5.96	-3.58
Other, Net	0.000	0.00	0.00	0.00	0.00	0.00
Income Before Tax	0.040	-0.135	0.42	-2.00	-5.96	-3.58
Tax	0.000	0.00	0.00	0.00	-0.08	-0.18
Net Income	0.040	-0.135	0.42	-2.01	-5.88	-3.40
Basic Weighted Average Shares (mn)	98.60	97.00	96.68	78.29	14,378	8,464
Basic EPS	0.041	-0.139	0.67	-2.59	-0.04	-0.04

### **Tri-Star Financing**

Firstly we should begin by noting that by a process of gradual accretion Odey Asset Management LLP, holds a 72.06% interest in TriStar (at least as of March 2019). This creep has not been deliberate in our perception but one of self-preservation of value of a position. If the asset manager in question had not backed the stock to the hilt through its travails then it stood to potentially lose the full value of its investment.

The latest substantial uplift in Odey's position occurred in June 2018 when 26,199,303 shares were allocated, via a private placing, to funds under the discretionary management of Odey Asset Management LLP for £11.27mn with a further 4,033,255 Placing Shares for £1.73mn allocated to other existing shareholders and new investors.

Following that issue, the Odey Funds's holdings totalled 67,805,797 ordinary shares representing approximately 72.06% of the enlarged issued share capital.

Then in July 2018 the company made an early repayment of \$2.6mn of secured loan notes held by Odey's funds. The outstanding balance of the Loan Notes was reduced to \$1.3mn. The remainder of the Loan Notes were due to mature on the 30 June 2019.

### **SPMP Financing**

The process of getting the troublesome Omani operation to a semblance of production has been a wearing process upon all partners to the venture.

As a result of the delays and the need to resolve processing issues, SPMP required further funding, in addition to the current banking facilities, which were almost fully drawn. The investment banking boutique, Hannam & Partners, was appointed in June 2019 to assist SPMP in raising debt investment and their work is ongoing. A number of interested parties were identified and due diligence was ongoing. The primary aim of the fund raising is to ensure that SPMP will be fully funded through to being cash flow positive.

The conversion of the mezzanine debt, owned by Tri-Star, which was initially announced on 20 March 2019, has been agreed, but not yet formally approved by the SPMP partners. It is expected to be finalised prior to, or at the same time as, the completion of the current funding round. The amount owing to Tri-Star of \$22,800,000 plus accrued interest at 1 January 2019 of \$2,014,322, will be converted to a non-interest bearing equity loan, along with proportional conversions by the co-shareholders. The remaining mezzanine debt owned by Tri-Star of \$2,000,000 plus accrued interest will remain payable on the original terms.

### **Bald Hill**

The company retains a small exposure to potential Antimony mining through its ownership of 100% of

Tri-Star Antimony Canada. Through this subsidiary, it owns a license to explore the the Bald Hill deposit, which is located within the Annidale Belt, approximately 40 kilometres northwest of Sussex, New Brunswick.

Following the acquisition of Portage Minerals in October 2013, Tri-Star picked up 891 claims within the Annidale Belt, which covers approximately 200 sq km surrounding the Bald Hill deposit and which hosts a number of other historic antimony and gold occurrences.

The Bald Hill deposit could, in the company's view, become a potential future supplier of feedstock for the SPMP Project. However as it hasn't had any work done on it since 2014, when a NI43-101 report was published, this would seem unlikely for the foreseeable future. Both previous Technical reports (2014 & 2010) are dead links on the company's website. Digging about revealed that previous drilling at Bald Hill indicated a potential quantity and grade in the 725,000 to 1,000,000 tonne range, grading 4.11% to 5.32% of contained antimony

The last news release of consequence was five years ago, in November 2014, when the company revealed that a reconnaissance exploration program had highlighted two new prospective Antimony trends in the Bald Hill area which have returned assays of 4.61% Sb and 21.7% Sb, respectively. These new areas together with the existing three trend areas are within a 4 km radius of the original Bald Hill deposit.

The "28 East" trend is located 2.8 km east of the original Bald Hill deposit. The reconnaissance prospecting returned assay results of 21.7% Sb from angular boulders. The "Carpenter Brook" trend is located 3km south west of the Bald Hill Deposi and reconnaissance prospecting there returned assay results of 4.61% Sb from boulders collected in an area corresponding to the location of historical work undertaken by Maritime Resource Research Limited. Compilation of previous exploration work in the Carpenter Brook area indicated a Sb soil anomaly ranging to 1,300 ppm Sb, 970 metres in length and up to 360m wide, orientated in a NNW - SSE trend which remains open to the north and south.

All this is well and good, and sounds promising, but when Oman moved to the fore and the Sb price turned south, the focus seemed to shift away and this project went into limbo.

## **Risks**

The principal risks from an investment in Tri-Star are:

- ✘ Prolonged low Antimony prices
- ✘ A sudden management vacuum
- ✘ Environmental problems for their US roaster
- ✘ Cash-flow or financing problems

Antimony has been in one of its swoons over the last year. The FANYA threat is behind us and the regulator threat against fire retardants is now a sleeper issue (but could come back to life). In the short

term prices seem destined to rebound as Chinese production continues to decline and low prices have stymied anything beyond small-scale production outside China.

The dependency upon non-Chinese primary production of Sb ores, or Sb-Au ores, makes the company uniquely vulnerable to supply issues which could see Chinese bidding for ore leave the Oman roaster high and dry on the supply front.

In some ways the best strategy for the JV would be to sign offtakes for the few non-Chinese mines that are showing potential for development. That there are so few in this category makes the task that much more difficult. Funding such start-ups would be the course most likely to ensure that a reliable supply can be achieved.

The long haul to production status in Oman has resulted in serial dilutions for Tri-Star's shareholders. Now production has been reached presumably this will be behind the company, however if revenues do not match up to expectations either because of margin issues or inability to source feed then the company may need to return to the (financing) well for a top-up.

### **Conclusion**

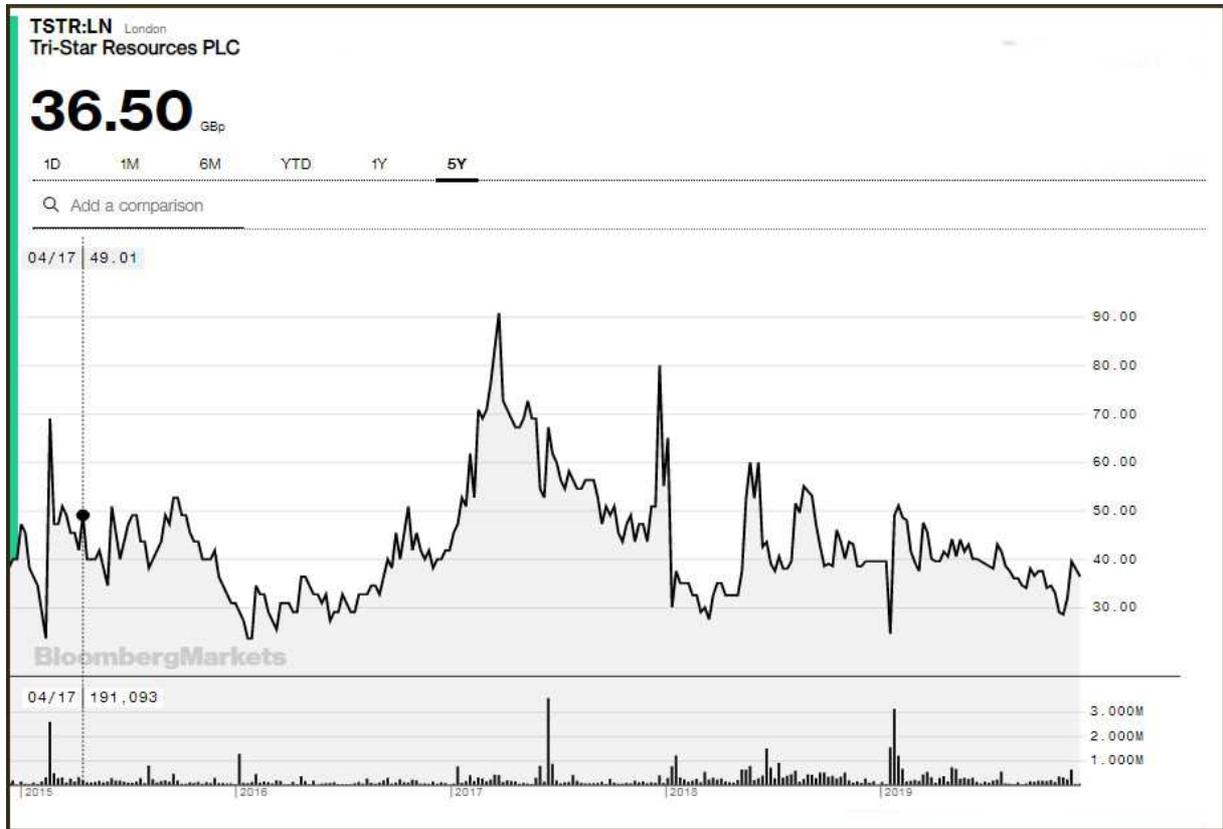
This company has been the great hope of the European Antimony plays since 2010. However, it may be European-listed but its targets have never been in Europe and, with the passage of time, have drifted to even more distant parts with the focus shifting from Turkey to Oman.

In doing so they have abandoned the upstream and eschewed the downstream leaving them firmly planted between the vagaries of suppliers and end-users. With the roaster now functional the issue of whether an adequate supply of ore/concentrate is available will rapidly become clear.

The strategy is somewhat dangerously dependent upon "the comfort of strangers" in requiring someone else, somewhere to develop Antimony mines or the company will be slugging it out with the Chinese for scarce or dwindling (e.g. Burma) artisanally mined product. With a demand for 20,000 tpa, the Oman roaster would need to corral almost all the artisanal production from around the world (in fierce competition with the Chinese) to provide what would be, at best, an irregular and unreliable (and sometimes legally dubious) source of supply.

Ergo, Tri-Star (or rather SPMP) needs to get vertically integrated or get down and dirty in funding upcoming projects with advances of real cash/investment funds and hard commitments at offtakes that transcend price fluctuations. This is what we have seen happen in the Tungsten space with regards to Almonty's relationship with its offtakers.

With this key playing piece missing we remain loathe to put anything more than a **Neutral** rating on Tri-Star at this juncture with a twelve-month target price of 35 pence.



## Important disclosures

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