

Talga CEO on Chemetall Deal and Becoming a Commercialized Graphene Player

Mark Thompson, Managing Director of Talga Resources Ltd. (ASX: TLG), in an interview with InvestorIntel's CEO Tracy Weslosky discuss their joint development agreement (JDA) with Chemetall, part of BASF, and their new, "mega [cobalt] project." The deal with Chemetall will commercialize graphene and will position them in the \$10 billion a year metal protective treatments sector. Talga signed another JDA with Zinergy, a UK-based flexible battery company earlier this year. Moreover, they picked up pristine cobalt assets in Kiskama, Sweden in 2012. They confirmed the sensational results of historical drill cores and will have assaying results to appraise the entire property. Talga has another cobalt rich project to the southeast: the Lautakoski iron oxide copper gold (IOCG) deposit. Mark will explore the dynamic cleantech applications for the graphene market at the Cleantech and Technology Metals Summit on May 15 and 16.

Tracy Weslosky: Allow me to start by congratulating you on your announcement with Chemetall. I understand your stock is moving rapidly on the news. Can you give us some highlights?

Mark Thompson: Chemetall is a subsidiary of BASF, which is one of the world's tier one global coatings and chemical giants. This is a very significant group to allow essentially us to go public with a relationship with them and what follows quite along, a sampling regime. We're commercializing some products. We have a product development deal with them that seems to be the last building block in people's minds about the commercial ability of graphene.

Tracy Weslosky: Let's take that a step further. I actually

read that you're looking at having revenue by Q2 of this year. Is that correct, and can you tell us just a little bit more about that?

Mark Thompson: Even though it's a sample development or I should say a product development agreement, Chemetall have agreed to buy the material from that program. This will provide income to Talga – obviously very small at first and then hopefully growing throughout the length of the agreement. Then there will be a separate discussion about commercializing that material, but still significant in that, it's quite an evolution from just providing raw materials. This is actually more of a value added situation.

Tracy Weslosky: It is value added. Of course, this helps with corrosion. Can you give us an overview about how significant this graphene commercialization process is?

Mark Thompson: First of all, what we like about graphene and coatings is it has a massive improvement in performance. Particularly with anti-corrosion, graphene can outperform currently used materials, like chrome, that are used in these coatings now. The ultra-thin and impermeable nature of graphene, plus its electrical conductivity allows it to outperform a lot of other materials. You get a really big bang for your buck by putting graphene into your coating. You get a lot of leverage from that because you also need a very small amount of graphene in that coating...to access the full interview, [click here](#)

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Talga – Rubber Hits the Road

As we have noted in the past the three key words that best sum up Vittangi are “cheap, cheap, cheap” and they are music to investors’ ears in these days where all other things being in a projects favour the Capex then spoils the show. The other mantra is, as we never tire of saying, “production, production, production”. The markets may have picked up, but this truism has not gone away. We are not going to “party like its 2008 or 2011” again for a long while.

With Talga we have yet another case of a stealth producer creeping up, like the tortoise on the hare, as its two successive campaigns of trial mining are turning into a test of the viability of, firstly, its mining plans and, secondly, its value-added products, primarily for now in the Industrial Coatings space.

In this update I shall look at the progress made over the summer months towards these two goals.

A Refresher

Talga Resources (ASX: TLG) has joined the rush and becomes the second graphite player of note to target Sweden (the other being Flinders, which is also run by Australians despite its TSX-listing).

Talga Resources has five 100% owned graphite projects comprising multiple deposits, all of which are located in Norrbotten County in the far north of Sweden. The two most advanced projects, Nunasvaara and Raitajärvi, both contain JORC Indicated resources. Nunasvaara, which forms part of the Vittangi Project, is a microcrystalline flake deposit, with what the company claims is the highest-grade JORC/NI 43-101 resource in the world (7.6mn tonnes @ 24.4% graphite). Raitajärvi, located some 150kms south-east of Vittangi is a coarse flake deposit, with 49% of contained flake classified

large to jumbo size (4.3mn tonnes @ 7.1% graphite).



Talga came out with a Scoping Study for its main target, the Vittangi deposit, in October of 2014. The main findings were:

- Targeting dual production of ~46,000tpa graphite and ~1,000tpa graphene over approximately 20 years
- Low Capex of around AUD\$29mn and capex payback 1.4 years
- Around AUD\$84/t feed costs for 2% graphene recovery and ~77% total graphite recovery
- Indicative pre-tax NPV in excess of AUD\$490mn based only on current JORC Indicated portion of resource – from surface

Stealth Production

While one sometimes despairs that the mining slump left no (or few) lessons learnt we are stumbling across more companies that do seem to have adjusted their strategies for the tough times and that this will hopefully carry on into the better times as there is no assurance “this time around” that money will flow in such an uninhibited and unfocussed way as it did pre-2011. Talga has joined the ranks of those companies that have used the downtime to prove their thesis with trial or micro-mining.

In July the company commenced its second trial graphite ore mining campaign at the Vittangi project with the plan being to extract ~2,500 tonnes as required to feed Talga’s upscaled pilot test work facility at Talga Advanced Materials GmbH in Germany and continue developing the proprietary graphene production process.

The 2016 trial mine is extending and deepening last year’s open pit site and similarly extracting whole multi-tonne blocks of graphite ore from within the total 2012 JORC resource of 9.8 million tonnes @ 25.3% graphite. The mine

looked like this after the first season's work.



For this season Talga adopted improved mining processes compared to the 2015 campaign with the main differences being:

- Larger, tailor-made and automated ore block cutting equipment for improved efficiencies and lower unit costs
- Ore blocks stockpiled in Sweden and delivered to Germany by truck as required

The benches at the start of the July 2016 campaign are shown below:



Slicing large blocks of graphite for dispatch reminds one more of stone quarrying than the traditional mining techniques of blasting and fracturing the material for processing into a concentrate. The advantage comes here from the grade of the graphite being so high.

Putting Together the Team

In early August the surest sign yet that Talga was determined to hit the road to production came with the appointment of a heavyweight projects manager in the form of Martin Phillips. In an announcement to the ASX the company revealed that Phillips, a chemical engineer, had been appointed as Projects Manager – Europe. He is a veteran project manager, commercial manager and company director with over 25 years in the global metals and mining sector. The responsibilities of the role will include managing Talga's graphene and graphite project developments as well as overseeing and driving of processing operations through Talga's German subsidiary operations, Talga Advanced Materials GmbH.

Building on an early career that included engineering roles in

battery recycling programs and smelting innovations at MIM's Mt Isa and UK operations, he constructed and managed operations and implemented growth strategies for offshore smelting businesses. His more recent roles at the mineral sands group, Iluka Resources, included Commercial Manager where his responsibilities were business and industry analysis, supply/demand models, market pricing and strategies.

Though compensation was not mentioned, we can be sure that snagging such an industry veteran didn't come cheap which is a further sign of Talga's seriousness on this front.

Thinking Outside the Box

The graphite space has seen a bewildering amount of applications floated past investors in recent years. Most investor's attention spans did not extend beyond the flake size "debate" and then narcolepsy set in. The "big" theme is the usage in Lithium Ion batteries but it is good to see that not all graphite players are not putting all their playing chips on this one space on the roulette table.

In Talga's case it has gone in the first instance for coating technologies and the users thereof as its initial end-users. This certainly reduces the competitive field and works on the angle that, being based in Sweden, Talga's mine/processing facilities are within easy distance of some of the most important industrial users in the world. While coatings may not sound as sexy as Tesla they are considerably more "tried and true" with the total global coatings pre-treatment sector is worth about US\$15bn per annum and falls within the US\$120bn paint and coatings market, which has reported compound annual growth of over 5%.

In Talga's opinion its coating technology has the potential to be used in many industries, but is particularly well suited to the automotive, electronics and aerospace markets and anywhere the use of toxic chemicals, such as hexavalent chromium (which

Talga's product does not contain), are banned. Inhaled hexavalent chromium is recognized as a human carcinogen, nevertheless workers in many occupations are exposed to hexavalent chromium in their daily activities. Problematic exposure is known to occur among workers who handle chromate-containing products and those who weld, grind, or braze stainless steel. Chronic inhalation of hexavalent chromium compounds increases the risk of lung cancer. The lungs are the most vulnerable, followed by the fine capillaries in kidneys and intestines. Within the European Union, the use of hexavalent chromium in electronic equipment is largely prohibited by the Restriction of Hazardous Substances Directive.

The product offers enhanced corrosion protection by harnessing graphene's extreme electrical conductivity, impermeability and chemical structure to form a high performance coating.

Talga also claims that its coating can be applied with industrial scale roll to roll machinery, reducing post-formation spray coating steps and improving manufacturing efficiency across products including automobile bodies to battery casings.

In recent weeks Talga announced that it had produced and delivered its first value-added graphene based product. The product, a metal pre-treatment coating ("Coating"), was delivered to a leading global coatings company following the filing of a patent application over the Coating composition and production method.

The Coating is the first of a range of targeted value-added products that Talga is developing and looking to commercialise. The global coatings company assessing the Coating will undertake accelerated application and performance trials over coming months.

At the same time, further tests on Talga's coating technology

are underway at research institutions in India and the UK, where scientific peer review analysis and publication of the results will be conducted.

Talga has aspirations to create a range of graphite products. The siting of the plant for these endeavours in Germany is a very interesting move by the company and heralds that it sees end-uses away from the almost “plain vanilla” Lithium Ion battery space as the way to go.

Conclusion

With Talga ticking the “cheap (by three)” box and the “production (by three)” box, it has earned a place in our affections.

Like many others in the graphite space, Talga needs to bag an offtaker/sponsor to get a leg up on the competition. At least in its case, the low capex is a draw while the positioning in Europe is also a plus. Flinders has shown it can be done in Sweden with minimal outside interference and for the Swedish government the area where Talga are working is an even higher priority to see economic reactivation and job creation.

Now that pilot production had provided proof of concept then it will be interesting to see if the company moves to a Feasibility Study (unless that phase can be short-circuited) and a partner found to kick-start the capex.

As for value-added products, it would seem that potentially Talga’s gain is the chromium mining industry’s loss because if its product can gain sufficient traction it should be able to displace hexavalent chromium where it is still used and provide an alternative to those manufacturers grappling with the issue of finding a safe and responsible alternative. Indeed like some others we can think of in the mining space, the idea of pursuing the value-added and downstream alternatives in their “spaces” has been made more attractive by the wrenching times that most miners have suffered since

2011.

Talga now moves to cement graphene and graphite customer relations

✘ Getting a mining project off the ground is a long, hard slog. And it is almost always achieved largely without too much attention. The business media and the investors get all excited when, say, a new player enters the lithium free-for-all, just as they once did when graphite was the flavor of the month.

Then interest tends to flag. So a company like Talga Resources (ASX: TLG) can make some substantial steps forward, as it has in recent weeks, without those steps getting the attention they deserve.

A few weeks ago Talga announced significant positive results from its battery test work. The “significance” was that, unlike previous tests in Germany that were on a laboratory scale, these latest ones were on an industrial scale. They are being conducted in Britain at the University of Warwick Energy Innovation Centre.

In the new program, lithium-ion coin cell batteries using Talga material had been produced by methods that could be scaled up.

Then this week there was a substantial upgrade to the resource at the Vittangi deposit in Sweden. (Both announcements have been posted here on InvestorIntel.) There was some interest on

the market, but nothing like the excitement caused when some penny stocks discovers the share price power of lithium.

“Buy on the hope, sell on the achievement” seems to be the way of the investing world.

A research report out in the past few days is also significant. It came from Patersons Securities, a Perth brokerage with a long association with the mining industry.

The interesting passage came under the heading “Catalysts” in the report, and concerned Talga’s successful demonstration of large scale, low cost graphene and graphite production at its pilot test work facility in Germany. It concerns commercial scale applications of graphene and ultra-thin nanographite and micrographite.

“While the company is currently providing samples free of charge, a further catalyst will be the transition to a revenue model, coupled with the successful conclusion of pricing point/s for the graphene products produced.

“Longer term, the decision to proceed with a full scale plant development is expected to be a key milestone, as we expect this will be timed with a ramp-up in demand from identified end-users requiring bulk volumes of products for commercial applications,” the research note says.

As Patersons analyst Jason Chesters sees it, the company’s marketing strategy is to provide early commercial sample volumes of graphitic products in order to develop strong customer relationships and bridge the gap of supply as research and development is conducted into new commercial applications. The pilot plant provides these samples, while also providing an opportunity to optimise the process and prove its scalability.

Therefore, it is interesting to note in this context the comments by Managing Director Mark Thompson earlier this week

when announcing the Vittangi upgrade.

Note the words: “In discussions with leading customers of graphene and graphite we understand that certainty of long term supply from robust compliant resources in quality jurisdictions is a key requirement.”

Talga seems to have clearly reached a key transition point on its road to production.

Patersons have put a “speculative buy” on the stock.

Stop the “boast fest” with graphite, warns analyst

☒ Cool your heels. That is the advice that graphite hopefuls have been sent at the inaugural Australian Graphite Conference in Perth. Jason Chesters, resource analyst at Patersons Securities (one of the leading mining and oil company broking firms in the West Australian state capital), said companies should drop what he called the “boast fest” about flake size and grade; instead, they should give priority as to whether or not the mineralization in their deposits can actually be used in products a customer wants.

Chesters went on to say that the global graphite market was in a stage of transition: demand from traditional industrial applications was slowing while the prospect of rapid growth in newer, high-tech applications offered promise. He reminded the conference that there is a growing number of hopefuls all seeking lucrative sales in a graphite market of only two million tonnes. “However, the reality is that expectations of required supply response to meet the additional demand may

fall short of expectations and almost certainly not be sufficient to accommodate all newcomers,” he added. And then this: “The rapid growth of graphite hopefuls is therefore likely to result in a significant number of disappointments.”

Chesters is not the first to warn about the overcrowding in the graphite sector. But it is clear that the race is on to be among those who make the list of successful players. Juniors in Australia are vying to announce deals and off-take agreements to differentiate themselves from those in the earlier stages of exploring and developing graphite projects.

Meanwhile, Andrew Scogings, principal geologist at Perth-based mining consultants CSA Global, criticised the standard of reporting by graphite explorers. “It is unacceptable, and potentially misleading, to simply report a tonnage and the contained mineral percentage,” he said. “As an example, a hypothetical flake graphite resource reported as 20 million tonnes at 10% graphitic carbon informs the reader only that the resource contains two million tonnes of in-situ flake graphite.” But such a statement conveyed nothing specific about the size, range and purity of the graphite flakes that could be liberated from host rocks, nor the presence and impact of impurities such as sulphides that may affect mineral extraction or product quality, nor possible markets for the product.

Meanwhile, one industry player takes heart from what is happening in the Chinese graphite sector. Andrew Spinks, managing director of **Kibaran Resources (ASX:KNL)**, said that – while China had been the world’s largest producer and consumer of graphite – market sentiment was turning elsewhere.

China dominates the market for natural graphite “yet graphite traders and end users are increasingly seeking diversity away from Chinese supply as well as servicing the growing public and government expectation of greater eco-friendly accountability in graphite supply for green energy and

renewables". This move was being led by the United States, Japan, South Korea, Taiwan and Europe.

The conference heard from some of the leading players.

Talga Resources (ASX:TLG) reminded attendees that it owned three of the top-10 graphite projects in the world. It also set out the considerable downstream progress made at Talga, with its breakthrough technology in liberating graphene from graphite, and that and graphene and micrographite uses are now upon us – and not a distant possibility. Actually, the company's presentation did cover something that perhaps may not be all that widely known: that is, that micrographite is critical for a range of bulk markets including lubricants, alkaline batteries, building materials, coatings and plastics.

Anson Resources (ASX:ASN) said it expects to be in production in mid-2017. This company is looking at a 25,000 tonnes a year mining operation near Geraldton, Western Australia. The project, which has a construction budget of \$56 million, is based on a deposit discovered in 1993 by CRA (the precursor of Rio Tinto).

Footnote: One thing to note about this conference is that it attracted a big attendance number (by Australian standards if not quite in the class of PDAC). Mining conferences in Australia have been struggling to draw business, but it seems that interest in graphite is running hot Down Under.

Talga – Its Designs on Nordic

Graphite

All things Scandinavian seem to be the buzz these days with their fiction writing and television programs being much sought after. Of course the region has been in demand before. The 1960s and 1970s brought us Swedish interior design (and porn, need we mention) and then there was Abba, while the 1990s brought us Nokia. Farther back though in the 1940s and earlier Sweden was one of the major sources of iron ore in Europe and its production of this mineral was hotly contested during World War Two (as was its ball-bearing output).

Now there is somewhat of a Nordic Renaissance going on in mining and this, in a way, is a reinforcement of the revival going on in Spain. Norway, Finland and Sweden have become hot spots with their traditionally propitious geology being revisited in a swathe of metals, both base and specialty (and even precious) as a way of creating jobs and bolstering export income.

Much to our surprise Australian companies have featured prominently in pushing into these parts where the weather could not be more daunting for those used to Southern climes. Talga Resources, which is listed on the ASX, has joined the rush and becomes the second graphite player of note to target Sweden (the other being Flinders, which is also run by Australians despite its TSX-listing).

The thing that first hit me in the eye with Talga's presentation was the use of the word "scalable" before all others. After "production", "scalable" is our second most favorite word at the current moment. Though "cheap" is also a favorite...

The Graphite Project(s)

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Norrbotten County in the far north of Sweden.



The two most advanced projects, Nunasvaara and Raitajärvi, both contain JORC Indicated resources, and preliminary economic studies on these deposits have commenced.

Nunasvaara, which forms part of the Vittangi Project, is a microcrystalline flake deposit, with what the company claims is the highest-grade JORC/NI 43-101 resource in the world (7.6mn tonnes @ 24.4% graphite). Raitajärvi, located some 150kms south-east of Vittangi is a coarse flake deposit, with 49% of contained flake classified large to jumbo size (4.3mn tonnes @ 7.1% graphite).

The Scoping Study

Talga came out with a Scoping Study for its main target, the Vittangi deposit, in October of 2014. The main findings were:

- Targeting dual production of ~46,000tpa graphite and ~1,000tpa graphene over approximately 20 years
- Low Capex of around AUD\$29mn and capex payback 1.4 years
- Around AUD\$84/t feed costs for 2% graphene recovery and ~77% total graphite recovery
- Indicative pre-tax NPV in excess of AUD\$490mn based only on current JORC Indicated portion of resource – from surface
- Project was deemed viable on graphite production alone, with graphene a by-product icing on the cake
- The company hopes that economic metrics will become even more robust as graphite and graphene recovery yields increase with future optimisation work
- Permitting underway for pilot plant production
- Metallurgical work undertaken on fresh rock – samples not subject to naturally elevated graphite purity by virtue of oxidation
- Conservative Study numbers – graphene price severely

discounted to then current minimum pricing and low-end yields assumed

☒ Above can be seen the pit design of the Nunasvaara graphite deposit, including haul ramps. This model does not encompass the potential for extensions/combinations of the pits. The Scoping Study contemplated simple pits to depth. The company feels that economics may be significantly improved should shallow resources along around 30kms of strike be proved viable.

The metrics of the operation would be:

☒

Other Considerations

There are also three other graphite projects, Piteå, Jalkunen and Pajala which according to the company all contain significant historically drilled graphite intersections requiring follow up exploration. Jalkunen though has a JORC Resource totalling 31.5Mt @ 14.9% Cg, Graphene and <100 µ flake.

However, with the two main projects, the company has more than enough to keep itself busy for the meantime. A further attraction of the two main targets is that both Nunasvaara and Raitajärvi have been declared areas of national interest by the Swedish Geological Survey, providing protection against competing land uses.

The company also has some iron ore projects in the same region, and northern Sweden has been an epicentre of iron ore production for hundreds of years. However, with the current glut and price slump these shall probably stay, literally, in the freezer for the foreseeable future.

The whole area is laced with rail infrastructure due to the historic iron ore trade in the vicinity. As can be seen from

the accompanying map Talga's graphite deposits are located adjacent to existing transport infrastructure including high quality sealed roads and open-access heavy haulage rail.

In Passing

When coming to write on Talga, I initially thought the name was new to us but in fact I have written, in passing, on this company before with reference to its project, the Bullfinch Gold deposit in Western Australia. It had come into focus before when we wrote about Tellurium because the Bullfinch deposit has readings of up to 107ppm of Te.

Conclusion

The three words that best sum up Vittangi are cheap, cheap, cheap and they are music to investors' ears in these days where all other things being in a project's favour, the capex number often spoils the show. Like many others in the graphite space, Talga needs to bag an offtaker/sponsor to get a leg up on the competition. At least in its case, the low capex is a draw while the positioning in Europe is also a plus. Flinders has shown it can be done in Sweden with minimal outside interference and for the Swedish government the area where Talga are working is an even higher priority to see economic reactivation and job creation.

The time has come to move to pilot production and then maybe a Feasibility Study (unless that phase can be short-circuited) and a partner found to kick-start the capex. At that point the company will have its ducks (or maybe geese as its northern Sweden) in a row for the move to production.

Graphene research now expanding at breakneck speed

✘ Dresden is in the vanguard of graphene research and development. But the German city is just one participant in what is becoming a headlong rush to expand the world's graphene thrust.

This week Talga Resources began graphene pilot plant processing in Germany. This follows commissioning of the equipment by Talga's partner, Technische Universität Dresden (TU-Dresden). As reported on InvestorIntel, the company said excellent performance has been reported. Meanwhile, graphene, nano and micro graphite, are now being further characterized by Talga's other German research partner at the Friedrich Schiller University in Jena.

Talga managing director Mark Thompson says he is pleased to have made initial progress at Dresden, in the heart of one of the world's most innovative technology districts.

This development draws attention to the amount of graphene research now under way around the world. New applications are emerging at a bewilderingly rapid pace.

Just in the past days, the University of Manchester has been awarded a £3 million research grant to help develop breakthrough applications for 2D materials including graphene. The *Manchester Evening News* reports the grant will go into work on combining one-atom-thick materials to help make innovative new gadgets.

Sir Andre Geim, who received the Nobel prize in physics in 2010, will lead a consortium including experts from Harvard University, the National University of Singapore, ETH Zurich, and the Japanese National Institute for Materials Science. That is another indicator of the spread and depth of the

graphene research sector.

Meanwhile, the university is to spend £60 million on a new Graphene Engineering Innovation Centre; it will house experts aiming to accelerate taking graphene to the marketplace.

Manchester already has the National Graphene Institute, which cost £61 million, and there is another £235 million earmarked for the Sir Henry Royce Institute for Materials Research and Innovation. And this week Professor Vladimir Falko, who has been one of the moving forces behind European graphene research, was appointed research director at the aforementioned National Graphene Institute.

Rice University in Houston, Texas, has come up with laser-induced graphene. The University of Adelaide in the state of South Australia, which has already done work on graphite, is now turning to running a pilot plant to extract graphene from graphite mined in Sri Lanka.

The Department of Applied Physics at the Hong Kong Polytechnic University has successfully developed low-cost semi-transparent perovskite solar cells with graphene electrodes. These have resulted in a marked increase of power conversion efficiencies compared to the convention semi-transparent solar cells.

At the University of British Columbia, researchers have been able to create the first ever superconducting graphene sample by coating it with lithium atoms. The university's press release says that inducing superconductivity in single-layer graphene has until now eluded scientists.

And the private sector is not standing still.

Britain's Haydale Graphene Industries has just won a contract to investigate whether graphene could be used to protect aircraft from lightning strikes.

London's *The Daily Telegraph* said the company's composites unit would investigate how graphene's electricity-conducting properties could be incorporated into the carbon fibre that is increasingly being used to build the wings and fuselages of modern airliners to reduce damage caused by lightning strikes.

Another British company, engineering materials group Versarien Plc has been granted U.S. patent protection for its volume graphene platelet production process. It has been working with scientists at the University of Ulster in Northern Ireland.

Grigor says Talga and MRL are 'catalysts for disruption in the graphene sector'

✘ First he singled out Talga, now Warwick Grigor says he has found the other key player in the low cost graphene space.

The Sydney-based resources analyst who runs Far East Capital made headlines in Australian newspapers earlier this year when he proclaimed that he was putting his money where his mouth was and investing a large chunk of his own cash into Talga Resources (ASX:TLG) because of its single-step graphene process.

Now his has picked out another Australian company, MRL Corporation (ASX:MRF) and – again – invested his own money. He says there is room for both in an investor's portfolio as they are operating in different fields. Talga is looking at a European hub (it is building a pilot plant in Germany and plans to supply European companies from its Swedish project) while MRL (whose deposit is in Sri Lanka) is looking to Asia

and Australia as its markets.

As I have said before, Grigor is one of the most experienced Australian analysts of mining companies and, also this year, issued a detailed paper on graphene.

He says MRL is a new player in the graphene space with the ability to use the same single step, low cost graphene recovery technology that Talga “has been holding close to its chest”. His client note is advising taking up shares in MRL because of the differences in valuation: Talga’s market capitalization is A\$54 million while that of MRL is A\$12.2 million.

There are other differences: Talga’s orebody is much larger and wider, offering long life and technically simple mining conditions. MRL’s orebodies are narrow vein and underground with less amenability to drilling out to prove the size of the resource, but this is offset by the lower costs of working in Sri Lanka.

Another difference is the grade, says Grigor. Talga’s is around 25% whereas MRL’s is over 90%. According to his figure, Talga will need about A\$30 million to get into production, MRL less than A\$10 million.

He says at this junction Talga is knocking on the door of becoming an institutional-grade stock but has to kick a few more goals to get there, the obvious one being the successful commissioning of the pilot plant. “I don’t think there is much risk here, but the box still needs to be ticked,” write Grigor. By contrast, at A\$10 million, MRL is still a private client stock at present; it is difficult to deploy sizeable sums of money into a company with such small capitalization.

Grigor’s second point, arguing that Talga needs to beef up its management team with respect to commercial operations, seems to have been satisfied. Last week Talga signed a non-binding term sheet with Haydale Graphite Industries, based in Britain,

which would see the two companies collaborate on the development of finished graphene composite and ink products. [As Roger Bade, at London brokers Whitman Howard noted, “although there is no certainty that this collaboration will come to anything, it could give credibility that both companies – although going along separate routes – are amongst the best graphene plays out there”.]

Grigor draws comfort from the fact that his two picks are essentially non-competitive because of their separate regional focus.

“As each of these companies make progress, sentiment will rub off on other players in the sector as the graphene story becomes more credible,” he says. “Both companies will offer the lowest cost, purest forms of graphene available, so they will both be catalysts for disruption in the graphene sector.”