

ASX Release / 30 May 2019



Presentation to Melbourne Mining Club

Attached is a presentation by Bob Vassie, Managing Director and CEO, to the Melbourne Mining Club today.

Bob Vassie, MD & CEO, St Barbara Ltd Melbourne Mining Club, 30 May 2019









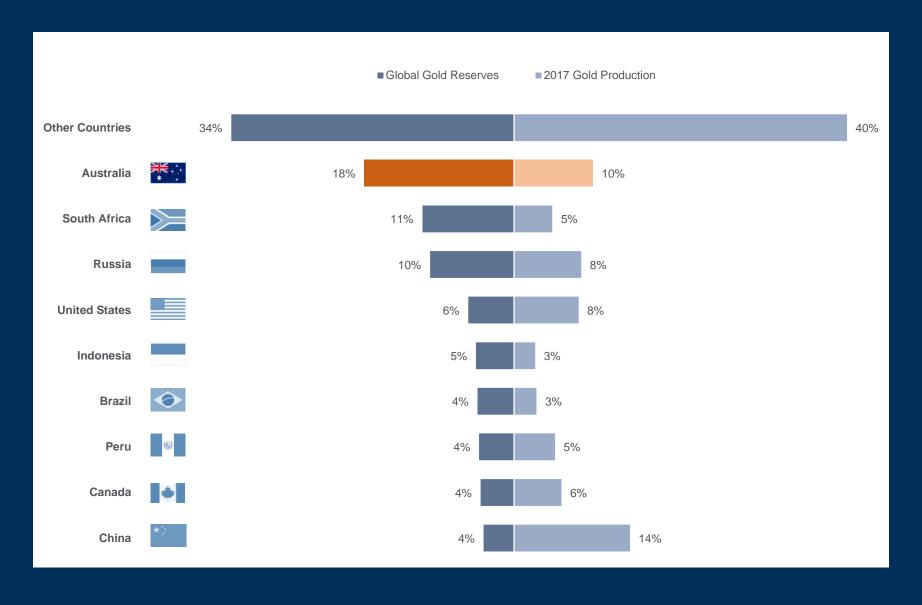






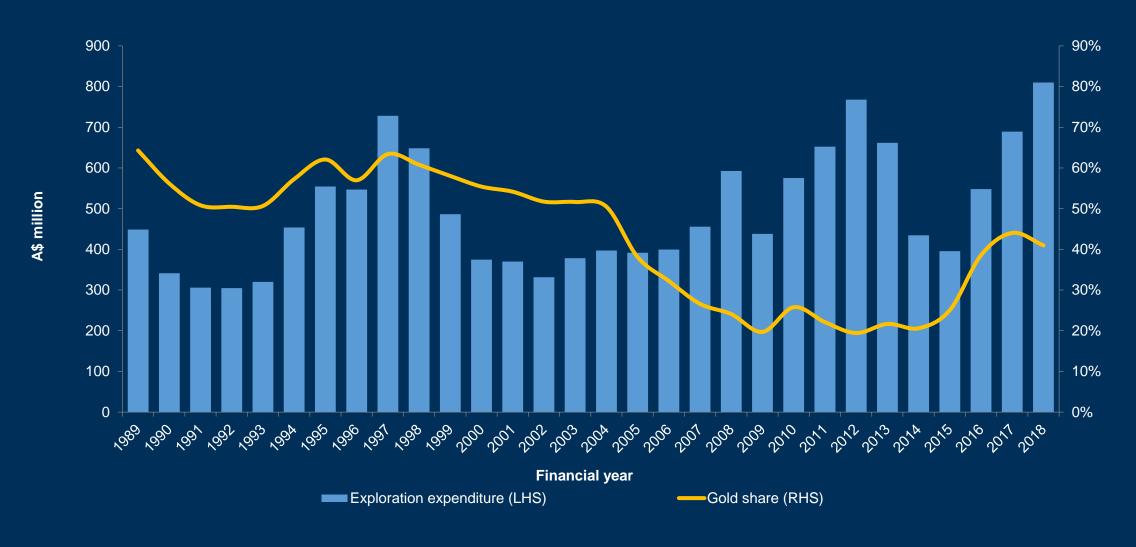
Global Gold Reserves and 2017 Global Gold Production





Australian Gold Exploration Expenditure

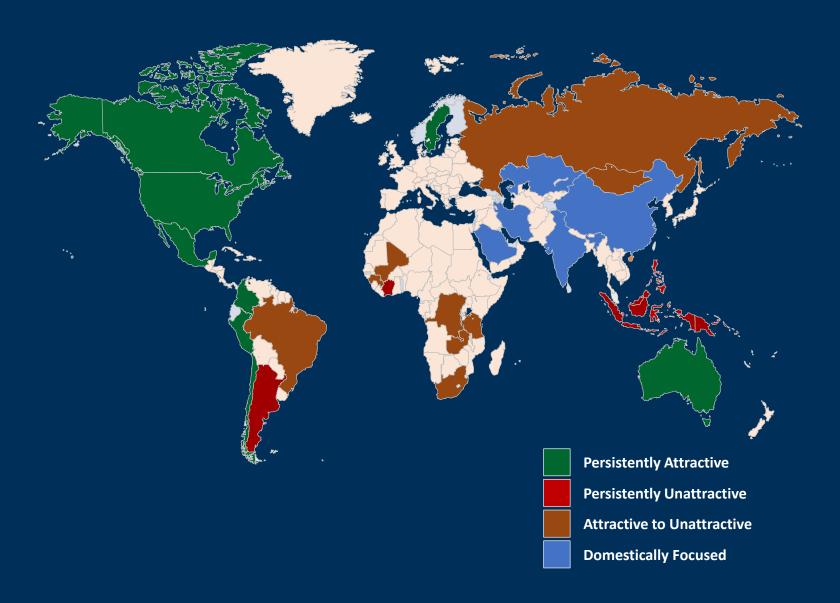




Australia as an Investment Destination







Relative Value of ASX and TSX Gold Miners





Source: Citi; Factset; Mineral Council of Australia Presentation

























Transformational Acquisition, Consistent with our Strategy "Stronger for Longer"





Diversify production base



- Substantial, low cost production from an established mining jurisdiction
- CY19 forecast production of 92 98 koz at an AISC of C\$695 755/oz (A\$740 – 803/oz)^{1,2}, with pathway to 200+ koz production



Sustainable long life operations



- Moose River has meaningful reserves with mine life of 12 years²
- High cash margins driven by an industry low all-in sustaining cost (AISC) position



Quality growth pipeline



- Significant growth potential through planned reserve / resource expansion (Phase 3) and regional drilling (Phase 4) programs
- Establishes a platform for future growth in North America



Talented people who deliver



- St Barbara is intending to retain the existing operating team and seeking to retain key Atlantic executives for the transitional period
- Atlantic's operational team has a track record of project delivery



Trusted to operate



- St Barbara and Atlantic are trusted operators in their jurisdictions
- Respective operational teams will be able to leverage each other's capabilities and specialisations

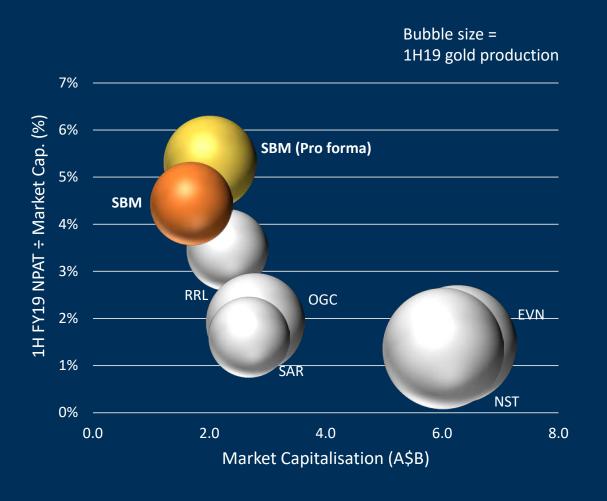
Reproduced from ASX announcement 15 May 2019 'Presentation on acquisition of Atlantic Gold Corporation and Equity Raising' (refer full notices and disclaimer in that presentation)

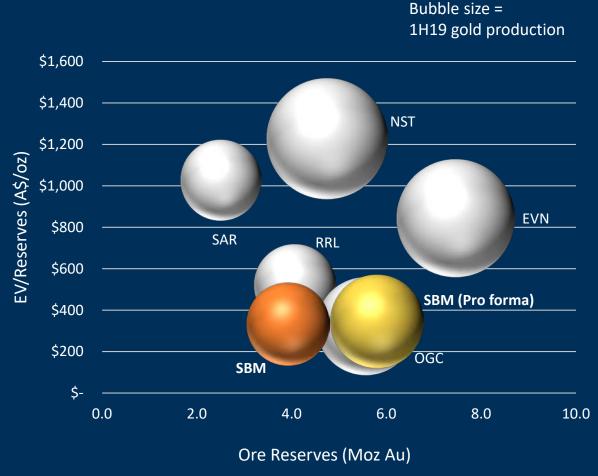
1. FX conversion CADAUD = 1.0642 (as at 10 May 2019)

2. Based on production schedule reported in 25 March 2019 "Updated MRC Production Schedule" Atlantic news release

Australian Gold Peer Comparison 1H FY19 NPAT and EV/Reserves

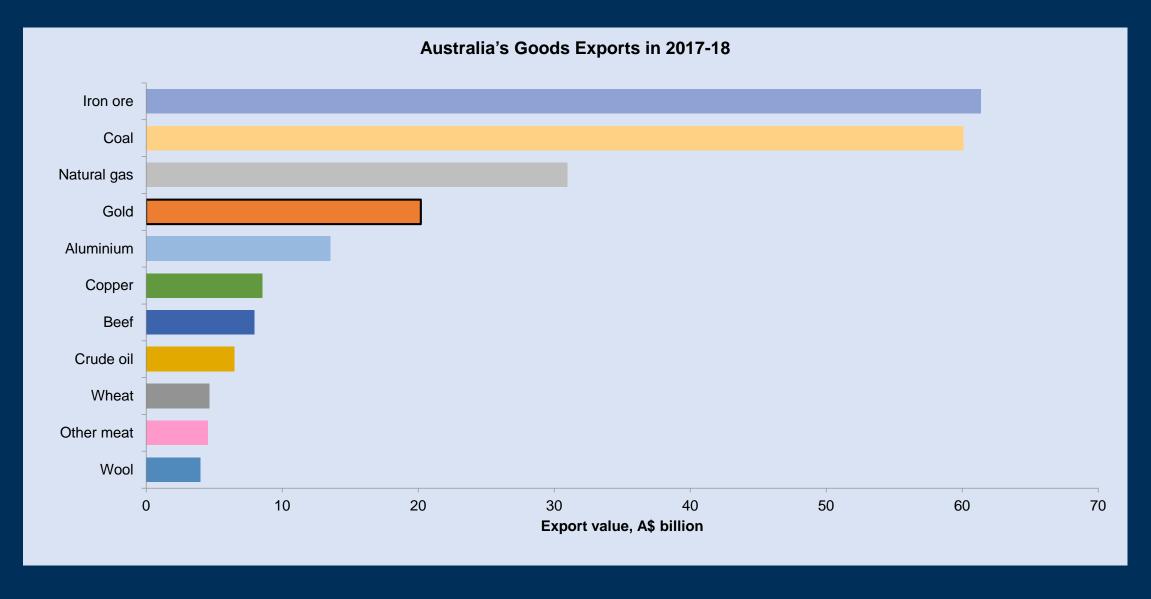








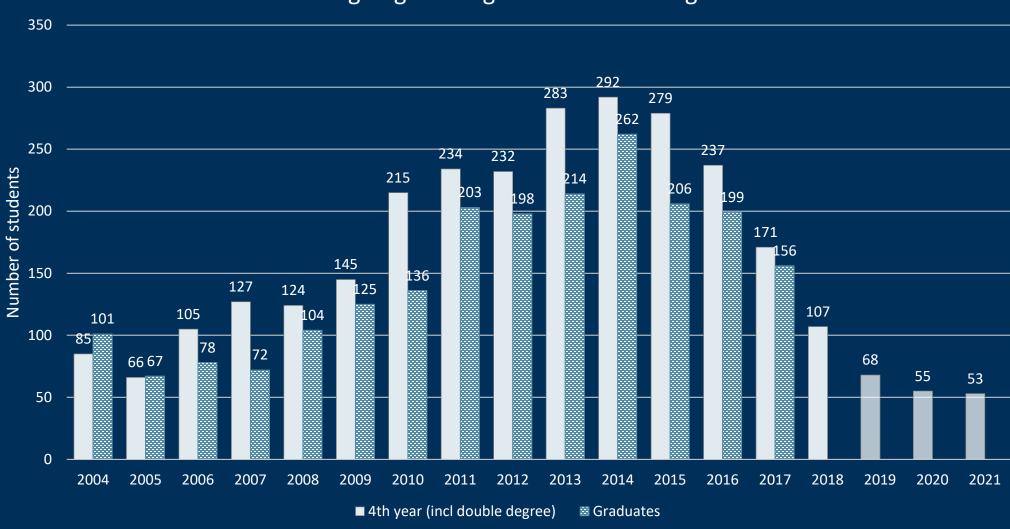




Mining Engineering Pipeline is Rapidly Declining



MTEC mining engineering: enrolments and graduates



Perceptions of Young Australians





"Just lack of exposure. I mean we are in a big city, there are a couple mines near here, but they aren't very active and the big mines are all in rural areas like WA or South Australia, so I mean it's a lack of exposure, so we might not be able to get an accurate image of like what the job actually is."

- Year 12 Student, Melbourne

WGEA Employer Of Choice For Gender Equality since 2014

- 2018 Winner of AMMA's Australian Women in Resources
 Alliance Award for Excellence in Diversity
- Representation of women on the board at 40%
- Representation of women in leadership roles at 28%
- Overall pay equity gap reduced from 43% in 2007 to
 14% in February 2019
- Nil gender pay gap in 'like-for-like' roles













Bob Vassie address to Melbourne Mining Club 30 May 2019

As the presentation slides to this event are not self-evident, the following notes of Bob Vassie's address were provided to media attending the event.

Introduction

I'd like to thank the Melbourne Mining Club for inviting me to speak today and thank the event sponsors for making it possible.

I have been to a few MMC events and really enjoyed them. Irrespective of who the speaker is, you always learn something and of course, the networking opportunity is fantastic. I never thought I would be addressing such an audience, but I will give it a go.

Today is not the forum for your common and garden-variety investor presentation. Rather, I will explore some aspects of the Australian gold mining industry in general, then I'm going to use some of our recent history at Gwalia and the challenges we have confronted to illustrate how a lengthy time frame can provide what I might call a humbling framework for the consideration of risk in our industry.

I will also touch on M&A in the gold industry, our strategy in that regard, and a bit about our recently announced proposed acquisition of Atlantic Gold in Nova Scotia.

I will also cover a couple of themes that I am passionate about, which are:

- o Diversity and inclusion
- o Attracting people to our industry, and
- o Leadership engagement in our industry.

While I am truly excited about the opportunities that our recent acquisition of Atlantic Gold present to us, I am more cognisant than ever about the challenges facing our local industry and more personally, St Barbara's existing operations.

We are a good-sized mid-cap gold company, but with only two existing operations. They could hardly present a greater contrast — one is the oldest mine in Australia's greater Kalgoorlie gold field of WA. This is the Gwalia mine. It is also the second deepest mine in the country and it presents formidable technical challenges the deeper we go.

The other is the Simberi mine. This is an island-based, open-cut operation in the northern islands of Papua New Guinea. It is intimately entwined with its strong Melanesian community.

Despite the fact that both mines could hardly be more different, in strategic terms they broadly present similar and well-understood mining challenges. This is how to grow reserves without collapsing margins. In other words, how to harness new technology and better ways of working to compensate for the challenges our respective resources put in our way: depth and grades in relation to Gwalia; and changing ore types in relation to Simberi.

Our industry

Being on the board of the Minerals Council of Australia (MCA) I have access to good information. I am continually annoyed at the repeated reference in some circles, including some politicians and media, to the mining boom being over and the need to look to some new information economy for Australia.

What people sensed as a boom was in fact a construction boom, which does indeed drive heightened spend and activity and you do notice when it subsides. However, that investment gave way to a production boom, as evidenced on this slide where mining revenues have increased along with employment.

The fact is, we need all types of industry for Australia's economy, but we certainly need the primary industries.

Gold mining's position in the Australian industry is impressive. It is the third biggest mining industry behind iron ore and coal. Gold is the sixth largest industry overall, with revenues larger than beef, wool, wine and cheese put together.

Gold miners everywhere face the challenge of dealing with ever-rising costs resulting in margin pressure. The fact is that most operations can book more reserves in each reporting year but not all reserves are equal. Therefore, you must aim to operate more cheaply each year. You do that with better technology, with better ways of working, with smarter ways of dealing with capital.

Industry consolidation

Let's look at the global industry and then the Australian industry with these basics firmly in mind. We are seeing a round of very significant consolidation, especially in the large-scale end of the global industry. There was the Barrick and Randgold merger announced late last year, followed in short order by the announcement that Newmont and Goldcorp would merge. Arguably, both of these moves were triggered in part by shareholder frustration with modest long-term returns on one hand, and on the other with the promise of step change cost synergies.

In Australia, it's a different picture. Our generally smaller companies managed the last gold price collapse and recovery with remarkable agility. The creation of Evolution Mining was a case in point. Good assets were acquired at reasonable prices, re-capitalised, and then renewed with fresh ideas, good technology and low corporate overheads. Northern Star has also done a wonderful job and Saracen and Regis, each with somewhat different strategies but both executed well such that they have been successful at their chosen paths. Growth is now proving much more difficult.

Then of course, there was St Barbara's own near death and recovery experience, arising from an acquisition that failed to meet its objectives. It's far enough in the past now for us to have stopped remarking on what happened – except to say that near death contributed to a street-wise culture of risk management at St Barbara that I'll also talk about shortly.

The point here is that our recovery, the resulting cash flows and the continuation of strong performance – together with that of many of our Australian peers – has given the Australian gold industry a positive investment rating relative to many overseas gold miners. This in turn is a measure

of the quite dramatic recovery in our sector beginning from my short time in gold from only five years ago.

Hence, we've seen Australian companies begin to look offshore, where we can hopefully leverage our scrip, but as always, there's risk. This stems from working in new and unfamiliar jurisdictions, the limits on, or quality of, what's for sale, and so on. The new element, of course, is the chance that consolidation at the large end of the industry, especially in North America, will result in a plethora of unwanted assets becoming available. We'll see. So far, many of us have been looking hard throughout the USA and obviously in Canada. The new frontier may well be Alaska, where Northern Star has successfully achieved the acquisition of a producing asset with interesting potential. You'd have to say that so far, however, the deals have been few.

More generally, the Australian industry has largely remained at home working on maintaining the margins of their assets, consolidating only when it makes sense and otherwise striving to apply new technology and news ways of thinking to the assets that support current cash flows, and to both brownfields and greenfields exploration in largely established gold provinces. This is precisely what St Barbara has been doing.

Simberi (PNG)

Simberi is a marvellous operation. It's generated over \$200 million in cash since we decided to keep it back in late 2016, with a mine life out to 2021, even though it was originally anticipated to close a couple of years ago. To be making this kind of cash flow in a 'one and a bit' gram per tonne operation with a 2 ½ strip ratio on a remote island in the pouring rain with diesel power and high logistic costs, you must be doing something right, and the team there has done a fantastic job. There is also the prospect of significantly extended mine life, should the sulphide project come to fruition.

When you think about it, we already have the airport, roads, village, power station, mill and over 700 trained local Islanders and PNG nationals, as well as local landowner contractors. We have even prestripped some of the sulphides by mining the oxides. We are continuing to drill beneath the Sorowar pit, seeking to improve the financial case for a potential sulphide project.

We are also focussed on leaving something behind for the community that makes it worth it that mining ever happened on the Island, if and when mining ever concludes. To that end, we have helped set up an independent landowner company that is already advanced on things as broad as market gardens, marine agriculture, bakery and chickens. We are assisting the schools and we provide courses for adults that never finished schooling, and providing other training to make the transition to closure more effective. We are also funding the New Ireland Province Malaria Alliance. This is the heart of what sustainable development is all about.

By the way, I should mention the Arial Rope Conveyor, or 'RopeCon' as we call it, is a truly great bit of kit when you have terrain to cross in difficult conditions.

Gwalia (Western Australia)

I could talk all day about Simberi, but fundamentally, when people talk about St Barbara they talk about the Gwalia mine. Some people still call us Sons of Gwalia (or SOGS). When you talk about the Gwalia mine, you talk about the challenges of depth, and about what history teaches us. This is

because Gwalia is not just Australia's second deepest mine and the deepest trucking mine in the world, it is also Australia's oldest operating mine.

Now I want to talk about something which is very St Barbara – the interaction between the challenges of depth and the lessons of our history.

The original Mt Leonora discovery was made in 1896. Production began a year later – that is 123 years ago. Herbert Hoover, then mine manager, was instrumental in the float of Sons of Gwalia Limited on the London Stock Exchange in 1898. Since then, the Gwalia mine has produced roughly 5.8 million ounces, 2 million ounces of which has been under St Barbara's ownership.

Over the 123 years, it hasn't been plain sailing. Gwalia and the shareholders associated with it have had good periods of production from a fabulous resource, but for most of its life, no one knew how good the resource actually was. The mine was on care and maintenance for 20 years, crippled by an internationally regulated commodity price. Twice the workforce went off to war. Once the plant was largely burnt out. Hedge book risk then famously took off another set of owners. Our own company almost succumbed to acquisition and debt as recently as 2014, which could have seen this fantastic mine in the hands of the receivers again.

I will note that when I joined St Barbara in 2014, whilst we had to let a number of good people go (in that year Corporate headcount was reduced by over half), we did not add any new people to the Company, and the remaining team performed the turnaround, for which I will for ever be proud and grateful.

Since then, of course, Gwalia has been mining through a sweet spot in the orebody between 1450 to 1750 metres below surface, allowing us to pay back debt and invest in going deeper to extend mine life with comfortable margins and optimised risk.

With our knowledge of history and the experience of our operations, we have an acute awareness of what can go wrong. Believe me, over the century of operations at Gwalia, much of what could go wrong has gone wrong!

A review of our history is an appropriate introduction for a discussion of our current major challenge, which is the challenge of depth. To our knowledge, we are the deepest trucking operation in the world. Gwalia is currently operating at 1660 metres below the surface. At that depth, it's a 12 kilometre trip each way of the decline. You can go down and back four times during an average 12 hour shift. Obviously you want to see if there's a better way, especially if you have found that the ore-body extends to 2690 metres below surface and you believe there is a very reasonable proposition to extend the mine life of this historic mine past the current 2031 end date.

For a time, we thought there was a better way than trucking and we pursued it under the banner of Gwalia Mass Extraction (GMX) it until it didn't work for us. We were attracted to underground crushing and perhaps milling, and slurry pumping options, although we assessed an expanded trucking option alongside them. How efficient it would be if we could mix a slurry underground and shoot it up to surface harnessing the energy to get water 1,500 metres down a shaft? By expending some capital, we could reduce operating cost and drop cut-off grade.

Typical of innovations, the more you study them the more you find out about the cost of mitigating the associated risks. Capital estimates eventually doubled and the construction impact on existing production was significant. Ultimately, a non-optimised trucking case (meaning 1.1 Mtpa) returned the better Net Present Value. Indeed, the non-optimised trucking case was less cost with less risk and uncertainty, less disruption and more flexibility and it gives us a viable and lucrative mine life to 2031 in any case. GMX by trucking is anticipated to demonstrate better mining rates when we double our ventilation in the new year. While highly innovative, hydraulic pumping was a step too far, and we selected the prudent option.

There's always an element of risk involved with innovation. At St Barbara, we believe we have a serious and committed tradition of technical innovation. It's got us to the depth we're mining at Gwalia. We have adapted absorption refrigeration technology, utilising waste heat from our power generation to chill the air. To change the economics of our deep trucking operation we have developed our own paste aggregate fill system, which can liberate trucks from carrying waste to the surface by crushing and mixing waste with paste underground to fill worked stopes.

We are aiming to roughly double our truck fleet and drive half a kilometre deeper. We'll need to think hard about ventilation, stope cycle times, development rates and a myriad of other trade-offs. But I believe we'll find opportunities for further innovation that we haven't discovered yet. There will be a time when we look back and say to ourselves that persisting with trucking gave us opportunities we would never have discovered any other way. That's the nature of our operation and indeed this is what the quality of the Gwalia orebody has always provided to its owners. In the end, a great orebody is all about optionality.

We took a bit of a hit when we announced we would not go forward with pumping options, but I am looking to claw a fair bit of that back. Production for FY20 will remain ventilation constrained until the second half of that year and then we have a backlog of development to do once the ventilation is available and to set us up for GMX. The opportunity to improve the future production profile centres largely on underground development rates, given the orebody geometry at depth requires higher development meters per ounce.

Exploration

We have also sought to broaden our portfolio through exploration. We at St Barbara are currently pursuing both greenfield and brownfield programs.

I should point out that we have an impressive tenement package from Gwalia North through Tower Hill, Harbour Lights, King of the Hills, up towards Jaguar and Bentley. It has not been explored by modern means and it presents a real opportunity for us. We are now in a position to do something here. Previously we did not have the money and then when we did we were more focussed on deep hole drilling in the existing Gwalia mine, and some of those holes are \$1 million each!

Beyond these programs there is something else. There are the relationships characteristic of this new exploration era where explorers are not being backed by the stock market. This is where we have focused on both operational and investment partnerships.

• We have a JV partnership with Newcrest where we are jointly exploring the islands close to our Simberi operation in PNG.

- Then there are the others that are more investment relationships, all focussed on gold. We
 have sought to find good ground being operated by efficient junior companies and, where
 a JV earn in is not immediately possible, take an investment position. We have four such
 relationships.
- One is in here in Victoria where the Fosterville mine has kindled such a renewed interest in the Bendigo region. So we have a 14% position in Catalyst Metals, which is exploring the Whitelaw trend north of Bendigo and getting some very good results.
- Closer to Gwalia we have a 12% stake in Duketon, which is exploring for gold in the Laverton area.
- In NSW we have an 18% interest in Peel Mining, now drilling out what we hope is a classic Cobar polymetallic resource, and in the famous Tanami region in the Northern Territory we have a 10% stake in Prodigy Gold.
- Finally, we announced last year an earn-in arrangement to fund exploration of the Lake Wells gold tenements controlled by Australia Potash.

We're not alone in funding or supporting strong exploration teams positioned on good ground. But it seems to us that the market is not happy funding greenfields exploration in an era where the dominant belief is that the lowest hanging fruit in Australia has already been picked. We don't think so and we think that's a great opportunity for us.

Atlantic Gold (Nova Scotia)

I will now briefly touch on St Barbara's recent announcement of the proposed acquisition of Atlantic Gold in Nova Scotia, Canada. We have not got the keys yet, that should be late July, so I can't say too much on their behalf. We are, however, already engaging constructively to ensure a smooth integration, and I am flying there tomorrow as part of this.

While speaking to media about the Atlantic deal on the day we announced, I was prompted to say to one of the reporters – "I'm pumped about this one!" and "I had to pinch myself", rare language in the context of M+A, but in this case I feel it is appropriate.

Why did we elect to pursue inorganic growth at a time when global forces are impacting the industry as a whole? Because in its most simple terms, Atlantic ticks all the boxes on our published strategy. It is our strong conviction that growth by acquisition must first and foremost be strategic.

We are a patient company and diligent in our assessing our expansion opportunities. We will not acquire ounces for ounces sake - as I have said before and continue to believe, inorganic growth is no automatic salvation.

In keeping with this view, we adopted a very disciplined approach to inorganic growth and have opted not to pursue a number of assets and corporate opportunities which haven't met all of our strategic criteria.

I had said for some time now that we needed to diversify our production base given the nature of our existing assets. To me that meant adding around 200 koz of production and I imagined that we might

have to do that in two goes, and that we would have to accept that we would likely dilute our existing All-In Sustaining Cost (ASIC) margin position.

I'm excited about this acquisition because Atlantic's bottom quartile AISC production makes it a margin accretive, transactable asset with a strong growth profile to 200,000-plus ounces per annum production with a team of talented people in a stable and attractive mining jurisdiction.

Win, win, win, win.

Our objective was to add a third leg to the tripod, if you like, to make the Company more sustainable and stronger for longer.

Associated with the acquisition, we used our strong balance sheet which had been built through consistently strong operating performance and sound capital management. We undertook a significant capital raise with the team at Deutsche Bank and improved our liquidity headroom with a new \$200m facility with Westpac (which is undrawn).

This raising was noticed in Canada, with quotes like:

- "How could those guys raise all that money for a Canadian asset when we can't raise a dime over here?"
- "What is an ANREO?" (Answer: an Accelerated Non-Renounceable Entitlement Offer)

The key for us was, given our share price since the GMX announcement (which I feel will recover when we can show better mining rates with the new ventilation), we wanted to keep the deal for our own shareholders. It creates some interesting metrics for our combined business, particularly NPAT versus Market Cap and Enterprise Value per Reserve ounce.

In doing so, we've preserved a balance sheet which allows us to continue progressing our organic opportunities, which now includes opportunities in a dominant ground position in Nova Scotia, whilst still keeping an eye on inorganic opportunities. From our new base in Nova Scotia, we're on the ground in North America which puts us closer to new opportunities.

We managed to achieve the full range of analyst outcomes upon announcing the deal. Of our main analysts 2 went buy, 2 went hold, and 2 went sell (with 2 excluded). The institutional entitlement offer was substantially oversubscribed and we have the money from that part in the bank already. The retail offer closes on 4 June and my wife and I have already participated, together with our eligible Directors.

Atlantic will provide immediate low cost production and cash flow and a growth pathway. That growth pathway does of course mean a focus on the studies and permitting which is well underway. It also means you cannot necessarily use current earnings metrics for accretion analysis.

Why could we not have done this in Australia? Truth is we tried, and tried hard. We looked at some things a bit smaller than us but when we raised the hood on the car and took a closer look we felt that some of the cylinders were missing. Larger mergers including the elusive "merger of equals" or the new variant (nil premium merger of equals) where often the parties are clearly not equal. These have all been tried but none have worked in the Australian space at any meaningful scale.

Relative valuation (who gets what slice of the combined pie) and social issues (who gets what job) abound. Sometimes a social issue is disguised as a valuation issue, or the other way around. Not just talking about St Barbara here.

Imagine starting marriage discussions with a prospective partner by picking holes in them. Pumping your own attributes and downplaying theirs. Or potentially highlighting the risks involved in a union. It's a race to the bottom and it's happening a lot.

Mining Industry

On to some pet themes that persist in my thinking about the industry that I love. Why do I love it? It's not just because it's a primary industry that the world relies on for almost everything it requires, and that it is responsible for 55% of Australia's export revenues. It's also because of the breadth of opportunity the resources industry offers people, and the quality and diversity of the people within it.

Still, it appears we have an image problem and we are battling to attract talent to the industry, and while there is a diverse range of skills and backgrounds and personalities, we are not far enough along on real diversity and inclusion.

The slide here is just an example of the decline in mining school intakes. A real opportunity here, one I exploited when I left school not knowing what I really wanted to do and without top marks.

My point is that people broadly, including the talent we want to attract, simply do not understand the breadth of roles and opportunities in this important primary industry. The MCA and others are doing some excellent work here but it is in the face of some stiff opposition from the marketing of the new information economy. Can't have these new age economies without food and things to cook with. Our people can be our best advocates here. It's not all about engineers and geologists. It's also lawyers, accountants, and all the other professions that make this all work and make it a great industry to work in.

Diversity

Some of you may know that I am a pay equity ambassador for the Workplace Gender Equity Agency (WGEA). Due to the good work that started in St Barbara before I joined the company, we continue to be recognised by the industry for diversity and our diversity programs.

However, we are the only miner in Australia that has been awarded WGEA Employer of Choice after an assessment of our programs and policies, ranging from how we recruit people, parental leave and flexible work arrangements. That is just one mining company in 141 Australian companies that have gained this recognition. All companies with 100 or more employees have to submit pay equity data and other information to the WGEA.

Now I suspect that many Australian mining companies are maybe there or close already, but have not yet gone the extra yard to get this accreditation, so I encourage leaders here today to have another look at it.

Resources create value

Finally, another people opportunity. When I had global resource development roles in Rio Tinto I learned from some very impressive people about how the resource creates value. Sounds simple, doesn't it? Well, it is not simple and more importantly, many resource business leaders may not fully understand that flow and its risks, and also seemingly lose the connection altogether as they get on with the myriad of other issues day to day, reporting cycle to reporting cycle.

Risk in the resource is risk to business value. In fact, Rio Tinto made a program for senior leaders on this.

The key take away for me is that for all senior leaders that find themselves running a resource business that are not from an orebody knowledge or mine planning background, there is a very simple yet powerful way to engage with the people and processes in the foundations of your "wall of value".

This is centred in the concept of reconciliation and can be used to engage in a number of ways.

Perhaps engage with a junior geologist doing grade control and ask about how sampling might create uncertainty and how that relates to value. Alternatively, ask a mine manger how the orebody is reconciling from the resource model to production, and why it is negative or even positive. Watch the colour drain from their face. But at least they will know you care ...

Engage in all the ways you should, on safety, on improvement, on costs, but do not avoid engaging on the resource when you are running a resource business. This goes for mining engineers (like me), metallurgists and geologists in senior leadership roles that may also not have as full of an understanding of the flow of resources to value that they think they do.

You never stop learning in this game and I have learnt more in my last 10 years than in the first 25.