Start of Transcript

Operator: Ladies and gentlemen, thank you for standing by and welcome to the Iluka Resources Limited Investor Briefing 2019. At this time, all participants are in a listen only mode. I must advise you that this conference is being recorded. I would now like to hand the conference over to your first speaker today, Ms Mel Roberts, General Manager Investor Relations and Commercial Mineral Sands Operations. Thank you, please go ahead.

Melissa Roberts: Thank you. Welcome everyone to the Iluka briefing day. Thanks to everybody that’s travelled across to WA and to - also to people joining us on the webcast. Just one piece of housekeeping. In the very unlikely case of an emergency evacuation, please follow the Executives that are here today, and the fire wardens, to exit the building. We have a number of speakers from our Executive today and we’ve allowed adequate time for plenty of question and answers at the end of session so if we could ask that you please keep your questions to the end of the presentation. The other thing I just wanted to point out was that we have microphones in the ceiling, so those will be turned on during the Q and A so we won’t have a roaming mic and you will be clearly heard through the webcast.

With that, I’ll pass over to our Managing Director, Tom O’Leary. Thank you.

Tom O’Leary: Welcome again. Thanks for taking the time to attend Iluka’s investor day. We host these events every couple of years to help provide some insight into the strategy and direction of the Company and to provide some context to the industry in which we operate. I hope you find the session today informative and I encourage questions at the end. We’re also webcasting the session and you’re able to pose questions online.

As you’ll have seen, today we released our Quarterly Review as well as an announcement in relation to a formal review of the corporate and capital structure of the Group. I’ll come back to that at the end of the presentation today.

2019 has been a year of delivery, with a significant number of projects and a commensurate quantum of expenditure incurred to sustain operations and to deliver value in the period ahead. We’ve also continued to work on a project pipeline, as Matt will explain, to deliver further value into the future. Market conditions have been mixed. The zircon market is facing some short-term challenging conditions, although as Christian will cover, the longer-term fundamentals for the market remain sound. On the other hand, conditions in the high-grade titanium feedstock market remain positive.

I’ll just note the disclaimer.
Slide 3 sets out the agenda for the afternoon. We have a number of the Executive presenting today, as Mel mentioned, including Rob Hattingh, our Chief Executive Officer from Sierra Rutile, who is visiting us from Sierra Leone at the moment. But all of the Executive are with us today and are available for questions at the end and I encourage you to take that opportunity.

This is not a new slide, but I think it helpfully encapsulates our global reach, both in our marketing and operations.

Going to slide 6, our objective remains unchanged and that is, to deliver sustainable value. There are many facets to this, including the quality assets in our portfolio that we are currently operating, as well as those in the development pipeline, our Royalty business, our disciplined capital approach and the long-term market fundamentals.

To take you through the Mineral Sands markets we participate in, let me hand over to Christian Barbier, our Head of Marketing. Christian.

Christian Barbier: Thank you Tom. Good afternoon everyone. I have included in this presentation some slides that are a reminder, or an update, on slides that you probably have seen before. Please take them as a reference. I’m not going to dwell on them, in the interest of time, but I’m happy to answer questions at the end of this session.

For instance, on this slide number 8, you’ve probably seen it before. The purpose of this slide is simply to remind all that Iluka is focused on the highest value products in the mineral sands suite. Of course, zircon, which is the dark blue bar on those bars and for TiO₂ the high-grade feedstocks that feed the chloride pigment industry - the yellow and grey-blue bars on this chart.

Starting with zircon, and again, as an introduction and probably a reminder for all, the left pie chart here shows in blue, Iluka’s share of the world’s zircon market, by production - slightly under 30%. The right pie shows where the zircon comes from in the world.

The next slide is also a reminder of the applications of zircon on the top row of pie charts. On the bottom row, the applications where Iluka is sending its zircon. As most of you know, Iluka is particularly present in the ceramic and the zirconia applications, which traditionally have been bringing higher margin contributions to Iluka. Interestingly, the middle picture shows a pacemaker, which uses a sensor that contains a special type of zirconia ceramic and that’s an example of relatively niche, but high growth and high margin applications for zircon.
Now on zircon prices. The pricing model that Iluka implemented four years ago has been targeted at ensuring that we receive an income that allows us, through the cycle, to reinvest into the business and into new projects, while at the same time, providing zircon users with visibility and stability so they can focus on adding value to their business, rather than on the timing of their zircon purchases. We have a reference price, shown on the grey bars on this chart, which represents the headline price that we charge all of our customers. Actual prices invoiced take into account the adjustment on payment, the type of product that is being purchased, the packing, the shipping terms and of course, the quantity. The biggest and most loyal customers of Iluka are part of a program called Iluka Rewards.

The green and blue lines on this chart represent the realised prices and it shows how they’ve increased over the last three years. But bear in mind that they also are a measure of the product mix that Iluka sells. We’ve reported, this year, that we are selling more lower specification products as a result of a softer demand and the need for end customers to reduce their cost. We’ve also increased loyalty and quantity rebates, like in the past. This comes after a couple of years, when due to market tightness, these lower spec products and rebates haven’t been very much required. We’ve announced, in August, maintaining our reference price until the end of the first quarter next year and hence providing visibility and stability in a place where economic uncertainly is affecting our customers’ business.

In terms of applications and considering the importance of ceramics, we’ve included a couple of slides with an update on the market segmentation and the zircon consumption trends in tiles. There’s no surprise here, when looking at the two pie charts on the left side of this chart, China is the number one producer and the number one consumer of tiles. But it’s worth noting that its share peaked at 49% of world production in 2016, while last year it was at around 43.5% and that’s due to the growth of emerging producing countries like Indonesia, India, Vietnam, Egypt and also to strong production from Spain and from Italy. For your reference, on the right side of this slide, depending on the type of tiles, the zircon intensity varies, I will leave this to you to read at your leisure.

Slide 14 provides an idea of the trends that we observe in the tile market. For some recent years, innovations like special digital printing effects with texture or relief on the white body tiles are shown on the top left picture, or large format slabs, as you can see on the top right picture. These have become mainstream and progressively are taking a larger share of tile production. The bottom pictures show new products that have higher
than average zircon loadings. They are not yet fully industrial, but they’re expected to take off in the next few years.

Now, the topic of substitution and thrifting often comes up when prices increase so I’d like to give our observations.

We do not see any substitution having occurred in the last two years - zircon being a material that has functionalities which are highly difficult to replace. However, we’ve observed increased thrifting in the form of reduced specific consumption and blending with cheaper materials. It’s in this respect that the situation is quite different from what happened the last time zircon prices went up, around 2012, because at the time technological changes drove significant reduction in consumption due to the introduction of double charge tile production. That wasn’t thrifting at all, at the time.

Today there are ways to reduce zircon consumption in tiles by producing thinner tiles, not using 100% zircon in the opacifier or by using low quality zircon, when possible. Of course, with a limitation when the lower zircon used provides visible whiteness difference, or when the opacity is also visibly lower. This is not a revolution, it’s been a trend that has developed over the last few years and is now fairly stable and common.

Now, we’ve also regularly commented on the zircon concentrate supply, mostly direct to Chinese processing plants. As you can see on this slide, the volume of concentrate has been progressively increasing over the last two and a half years. It’s been used as a way to meet increased demand for zircon and Iluka has been participating in that segment, as you can see on the pie charts on the right side of this slide.

Now what I’d like to reiterate is that Iluka has ample capacity to feed this market, as required, on an ongoing basis.

Likewise, we’ve regularly communicated on the Indonesian zircon situation so I’d like to provide an update. I will leave you to read this slide at your leisure, but I wish to comment on the next slide showing Indonesian sand exports. This year, we’ve observed Indonesian zircon and exports at around 6000 tonnes per month, a rhythm that’s been fairly stable since the fourth quarter of last year and that we don’t expect to see further increase in.

The level of production and exports in Indonesia depends on a number of factors, like the exchange rate of the Indonesia Rupiah, the gold credits that the miners get, the situation in the palm oil plantations in Kalimantan and of course, the price of zircon.
Finally, I’d like to end the zircon part of this presentation by a few considerations on the market outlook. The chart you see shows the zircon production, according to TZMI, in the grey area and TZMI’s underlying zircon demand on the black line. We’ve added Iluka’s production in the blue area to put things in perspective. It’s the zircon sand production and does not include our zircon in concentrate.

We’ve also added three trend line scenarios, in dotted lines, for the demand. This is not a demand forecast. It is to illustrate what has been shown previously, a gap between an increase in demand and decline in supplies from existing mines. In the short-term, we have to be mindful that the demand surplus, as a result of the global economic conditions and the destocking across the downstream supply chain of zircon, is affecting demand. However, medium-term we see solid fundamentals for demand, even if generally, we try to be cautious on the growth rates to be expected. Regarding the production decline, as you know, Iluka has a suite of projects in its pipeline to ensure continuity of supply and Matt will be providing you an update on this.

Now, to titanium dioxide. Again, this is a reminder of the applications on slide 21 and on slide 22 is a reminder of the production of TiO₂ feedstock. This is for the record. Again, these are updates of slides we have previously shown. On slide 23, you can see Iluka’s focus on the highest-grade chloride feedstock, to the right of the slide.

On slide 24, you can see how synthetic rutile, in yellow on this slide and natural rutile in green, helps chloride pigment plants increase the head grade, generating benefits for them in terms of costs, in terms of complexity of logistics and operations, in terms of environmental footprint and of capital optimisation.

Now, we’ve communicated before that we base our pricing of TiO₂ feedstock on relative economic value - REV. To explain a bit more, we use a wealth of information, data points and technical parameters to identify the value in use of our natural rutile and of our synthetic rutile when processed into pigments and to calculate their relative economic value compared to other feedstocks that have a lower grade. Thanks to the advantage of these high-grade feedstocks that we provide, as was shown on the previous slide, we price our products to ensure that we adequately capture the value.

At the moment, we observe that the tightness of rutile and its ability to improve the head grade in the chloride plants, especially at a time when a number of chlorinators are operating at a high utilisation rate, provides a positive pricing dynamic which also benefits synthetic rutile. We believe that the positive pricing dynamics will continue into the future,
when considering the rutile price relative to pigment price - on the left chart of this slide - and as the supply of rutile is expected to remain tight in the coming years. As you can see on the right chart, especially after the supply tipping point that occurred in 2017.

Now, moving to the pigment industry. This slide is also a reminder of where the chloride technology sits compared to the sulfate technology, on the left pie chart and who are the players in the chloride world on the right chart. This is, again, for your reference. What I’d like to stress, and we’ve commented in the past, is the growth of chloride pigment production in China. On chart 1 on the top of this slide, the left bars represent the low-quality pigments that are made from sulfate technology, where emerging players are dominant. The middle bars are the segments where the competition between western and Chinese players is most acute. When you start to differentiate your pigment products, you require chloride pigment. When you go towards the right side of this chart, you require chloride pigment.

So far, Billions is the one in China that’s really moving in that direction and commissioning new chloride pigment lines for that purpose. On chart 2, you can see that in the last six years, 80% of the pigment growth in China has been in the sulfate technology - the grey bars. While in the next four years, the growth is expected to come mostly from chloride technology - the green parts on those bars - hence the need for China to increase its very high-grade feedstock consumption in the future. You can see on chart 3 that currently, the country does not produce much domestically and that’s why we believe Iluka is well-positioned to take advantage of these trends.

After this zoom in on China, stepping back and looking at the whole pigment market in the world, we observe that after a peak in early 2018, the pigment market has been consolidating for a year and a half with softer demand and destocking. We, as well as industry analysts, expect that it will recover towards the middle or the end of the second quarter next year. The fundamentals remain positive in the long-term. The growth of industrial land construction outputs is expected to stimulate pigment demand in the world. On this, I will hand over to Adele. I’ll be happy to answer any questions at Q and A time. Thank you.

Adele Stratton: Many thanks Christian for the insight on the market. Good afternoon everyone. For those of you who don’t know me, I’m Adele Stratton. I’m the CFO of Iluka. I’d like to briefly talk through our operations here in Australia - which is a little unusual for a CFO, but I thought I’d give it a go - before I actually hand over to Rob Hattingh, who is
going to take a lot more in depth look at our operations in the Sierra Leone.

As you can see, and as Tom has articulated, 2019 has certainly been a year of transition for Iluka. All our operations in Australia have had a major operational configuration change and I’d like to touch on those briefly.

Starting with Cataby. That’s been our newest greenfield development. As this timeline shows, this resource has sat within our portfolio for over 40 years. In the more recent history, i.e. over a decade ago, we considered multiple development options, but we just couldn’t quite make the economics work at that time. Finally, we identified a suitable approach to development which included reusing idle equipment, which helped reduce the capital cost, combined with the development being underpinned by the take or pay contracts that we’ve mentioned many times before, and that underpins 85% of the production of synthetic rutile with western pigment producers.

Again, I need not remind you that those contracts have floor prices with no caps which is quite an unusual contracting strategy within the mineral sands industry. The project has been delivered on time, within 12 months, and on budget. I think this is a great demonstration that Iluka has patience, seeks to achieve an appropriate return on capital and is focused on capital discipline. Cataby commenced its commissioning in April this year and has been steadily increasing the rougher head feed production and we expect to achieve full run rate this month.

As with commissioning any new plant, ramp up doesn’t always go in a straight line and in Cataby’s case, the reuse of refurbished equipment led to some initial reliability issues. But we’re confident these are being addressed and the focus has now turned to building throughput capacity beyond the current nameplate. From those who are joining us to tomorrow at the operations Dan McGrath, Mel Henderson and the team will provide further colour and insight in this regard.

Slide 34 provides a helpful summary of the Cataby operation. As noted, we approved the $270 million investment. The current mine has an eight-year life and there’s a possibility to extend that by a further four years.

In support of the Cataby development, it’s necessary to undertake a major maintenance outage on the kiln which produces the synthetic rutile.

These major maintenance outages generally serve a four-year kiln campaign on average. Earlier this year, we completed one of the largest overhauls of the kiln that we’ve ever
undertaken. This included a new rotary cooler shell and a new quench tower and rather than me talk to it, I’ll just show you a quick video. For those who are watching via the webcast, if you just click the link in the presentation that will take you to the video. [Corporate video]

I think that video managed to do it much better justice than what I would have been able to do. That cost us around $35 million of capital. A significant body of work, as you can see. And all again, completed within the schedule. In fact, it came in a couple of days early.

Moving to Jacinth-Ambrosia, which is Iluka’s largest zircon dominant deposit within the portfolio. This was discovered in 2004, with first product brought to market in 2010. This deposit has a very high zircon assemblage of about 50% and originally had a 10-year life – and was brought to market 10 years ago. Iluka has a history of being able to extend the life of its operations and we’ve successfully completed that again at Jacinth-Ambrosia with the successful move to the Ambrosia deposit which helps to maintain our current Group zircon production levels through to 2022. Matt will touch on later some of the projects that fit within our pipeline to continue that expansion project and put Iluka in a strong position, going forward.

On the mine move - again, has been completed on - well, actually - under time and under budget. Two months ahead of schedule. That was a bit of a whirlwind tour of the Australian operations. I will, at this point, hand over to Rob Hattingh to take a much more detailed look at Sierra Rutile.

Rob Hattingh: G’day everyone. It’s interesting to be in sub 20 degree temperature for a change. I had sort of lost contact with what that feels like. First of all, I would go through our current operations and talk a little bit about where we are at the moment. I think some of you may be familiar with our operation, but I’m assuming that you haven’t had that much contact with it. This image on slide 38 is our Gangama operation and in the background there you can see our run of mine stockpile that we use to help us with the wet season. We get up to three metres of rain over a six-month period.

In terms of the overview for Sierra Rutile, 50-year-old operation. It really was a dredging operation for most of that time and that dredge finally died this year, nine days ahead of schedule, which was - I think the operations guys timed extremely well.

We now have moved completely to dry mining operations. We employ about 2500 people, 98% of whom are Sierra Leonean and we’re responsible for, in 2018, 3% of the GDP of the
country. We’re a fairly large player, 13% of domestic exports. We are completely self-sufficient so this is an operation that has to be reliant, only on itself. That starts with power - we’ve got a power house, we’ve got our own port, so our own logistics chain internally until such point where we deliver our product to a ship in the Sherbro channel Sherbro estuary. It is a long logistics chain and that’s had its own challenges that we’ve had to deal with. If we want anything there’s no Bunnings around the corner you can run to. You literally - it will take you a month or two, or three months, to get something into the country.

Our operations - I’d like to point out, on the next slide towards the bottom there, where the pink blotch is, that’s Area 1 where we’re mining at the moment. We’ve got about - up to about five years left there. There are some areas, within Area 1, that’s not necessarily in our mine plan at this stage that we can high-grade to extend our life in that area if we need to. The larger area towards the top left there, that is our future Sembehun area. That’s also a mining lease. Sembehun has similar geology. It’s all open to the north east so we’ve applied for additional exploration leases on those areas and to the north. We believe the geology to be similar to what we have in Area 1 and Area 5.

If you look at the resources and reserves there, as a rough cut, we’re talking about eight or nine million tonnes of ore per year now over the two operations, Lanti and Gangama so that gives you an indication of the life that we’ve got left. It used to be a dredging operation until 2019 - this year. In 2013, the Company went and started exploiting Gbeni pit, which is adjacent to the Lanti complex, which was a dredging complex. Gbeni pit has been an open cut mine. It’s a dry mine. The first mine was commissioned in 2013.

When we looked at it, one of the benefits we thought we could bring to the table was increased recovery, increased throughput and also mine more efficiently in the Gbeni pit. So we converted that to an in-pit mining unit with sizer - mineral sizer with an ex-pit scrubber, with a pump to the same concentrator. DM4 is our new operation - I think Matt will talk a little bit more about that. The old dredge had a floating concentrator behind it. What we did was to decouple the dredge and concentrator, beach the concentrator and we’re going to use that for the next few years to process ore from a new mining unit that we put in in the same Gbeni pit. That was commissioned in September and is currently busy ramping up. At DM2 or Gangama operation - in 2016, before Iluka merged with Sierra Rutile, that operation was commissioned. It was done really well. We’re very happy with what we saw.
Slightly different operation so truck and shovel, which then takes it up the ramp into a discharge hopper and then from there, through a scrubber, into a plant where it’s separated - conventional technology. That was a good operation so we basically duplicated that. That was commissioned in April and it reached full capacity in June this year.

In terms of operational challenges, because we have been talking about those. Broadly speaking, one of the things that really was a surprise to us was the lack of technical skills and experience in people we could find in country. Difficult geography, difficult operation to get people into as well. Reluctance of skilled people to work in Sierra Leone. I don’t know why. My wife is there with me, we love living there. But it’s just, I think, there’s a lot of stigma attached to the country, quite unfairly in some cases.

There has been a change in government and with any new government, you find people take a bit of time adjusting. There have been some distractions, from operational priorities, due to government interaction. And community disruptions - this is a very old mining area, 50 years old. Community - there’s a bit of a sense of entitlement so the interaction is not quite what you would expect in the sort of area where it’s more greenfields, where the mine can grow with the community. We find that we’ve had a lot of legacy issues we have to deal with, with the community. In terms of Lanti pit itself, where we were – or Gbeni pit, we were talking about our operational issues we’ve had. We did identify that we could bring a lot of benefit by implementing new technology in that area.

One that’s not mentioned here is recovery. I believe we’ve lifted recovery by about 15%, which is a huge benefit that our technology has brought to that environment. But it’s a complex technology and it relies on good maintenance skills and it is a difficult environment to operate in. We’ve had weather challenges, we’ve had ore challenges and we’ve had maintenance and operational challenges as a result of the flowsheet. Quite a few of the things we’re doing at the moment are aimed at minimising those impacts.

We’ve done a lot of modification to the in-pit mining units. The second mining unit we’ve just commissioned has got those modifications in to improve both maintenance and the wearability of it - or the wearing of those components.

We’ve also outsourced our maintenance, to a large extent, in the short-term, while we can upskill people in our crews to do the work in a more acceptable manner; a higher quality of maintenance, so to speak. We’re looking at alternative methods and mechanisms to help mitigate some of the ore challenges we’ve had. For example, blending ore and
streamlining some areas so we can - we don’t have to move the mining units so often etc. Some of the difficulties we have there, which are also quite interesting to deal with at times, we have to supply full medical service to all our employees, plus for dependents, plus their partners. We have a clinic that sees about 2500 to 3000 people, per month. We’ve done a lot of work to upgrade and upgrade the clinic.

From the education perspective, the new government came in on a manifesto, amongst others, of education. That aligns really well with our requirement to upskill our people. We are working in partnership with a number of NGOs, but also the government, to upgrade and update facilities in the area and ensure that we have the people we need, but also are a benefit to the country. Our rehabilitation we brought to Sierra Leone, previously it was viewed as the best in the country. But I think what we’re doing there now is a step-change. We want to make sure there’s no residual liability and we’ve done a lot of work on - specifically, in our people, to upskill them as well to bring Australian technology to Sierra Leone, but also ensure there are people who can continue doing it after the mine closes.

In terms of the fiscal regime, we have a very specific Act of parliament that applies to us - the Sierra Rutile Agreement (Ratification) Act 2002. That has been in place now for a number of years and it has a hold harmless clause or a number of hold harmless clauses in it. To date, there has been absolutely no indication that that would not be respected and it is really important to us to have it as such. It’s got some unusual terms in it. For example, there’s a turnover tax, irrespective of whether you’re making a profit or not. Royalty rates are slightly higher than it would be under normal legislation. But overall, the stability that it brings to us is such that we’re very comfortable, with the Act, as it is now.

Sierra Leone has now recently started getting involved in the Extractive Industry Transparency Index. They’ve showed, at least, an improvement over the previous reporting period. We are very happy to take part in that. We encourage that tax transparency. We encourage people seeing where their money goes to. It’s part of our anti-bribery and corruption sort of approach that we take, so we’re very happy to take part in that and I think we’re the first Company that’s now submitted in the year 2017, 2018 requirement.

I just want to touch on our partnership with IFC. I think this is one of their largest equity investments, in Africa, in mining. They have invested US$20 million for 3.57% stake in Sierra Rutile in this year. Part of that relationship is access to the IFC’s social and environmental and governance advisory group, which we are making full use of. Not only
does it help us upskill our own people in terms of community relations, community development, but it’s also giving us access to international expertise in a number of areas that we just don’t have the critical mass to do ourselves. For example, gender-based violence, some of the local supply uplift projects and processes.

But also, things as simple as agriculture improvement. We’re trying to get people off the dependency of the mine. The only way to do that is to get them back on the land and to - for them to have - actually be able to make a living out of it. The IFC relationship at this stage is very important to us and we’re very pleased be part of that development process.

Okay. Thanks Matt.

Matthew Blackwell: Thank you Rob. Thank you and let me express my welcome, again, to those who are in Perth and on the phone. I guess the majority of discussions I’ve had with people here has been as Head of Marketing. For me, in projects, I’ve spent most of my career actually delivering projects. It’s a bit of, back to my roots. It’s a really exciting time to be leading Iluka’s major projects and engineering initiatives. I believe we can add significant value - or there is significant value to be realised through our - through the successful execution of our project pipeline. I have a great team and it’s a team that I would say has been getting match fit. They know what it takes to deliver not just a physical asset, but a working part of a business.

This is evidenced by the fact that the Company, this year, has delivered five significant projects so far and for the most part, with exceptional safety outcomes. In all cases, expenditure has been within the approved budgets and the assets have been handed over in accordance with the schedule. I point out that due to timing predominantly, some of our enhance and sustaining capital spend will shift from 2019 into 2020. That’s why you see, on this slide, guidance of approximately $215 million this year, rather than the $260 million that we guided at the half. I’ve started with this slide about what we’ve delivered so far because current performance, I think, provides important context as we embark on the phase of our project delivery journey.

We have a really exciting pipeline of projects. As you would expect, the majority of these highlighted, contribute to the future production of both titanium and zircon, our key product lines. But we also have projects that will diversify our product offering by monetising the significant rare earths endowment that we have.

The Eneabba Mineral Sands Recovery Project - longest name we have, conversely proportional to its capital - is the first of these. With a minimal capital spend of less than
$10 million, we aim to be exporting a monazite rich concentrate within nine months from today. This project is on track. Construction has commenced and a number of the key approvals required have already been secured.

The project investment decision was based on exporting about 50,000 tonnes per annum of product. We have interest for more from our customers, should we want to sell more. But one of the reasons we might constrain sales in stage 1 is that we believe stage 2 of the project could deliver, or should deliver, significant margin expansion. First, we’ll deliver on our commitment to stage 1, prove to you, our shareholders and other key stakeholders that we can do this successfully and then we will continue - or we may continue into stage 2, the studies of which have already started.

The second project, which has an element of diversification about it, is the Wimmera project. This project is as much about rare earths as it is about zircon, with revenue split roughly 50:50. We’re busy undertaking the pre-feasibility study which involves testing and confirming our various assumptions. We anticipate to be in a position to select a preferred flowsheet, to take to DFS, by Q2 of next year. If our assumptions prove to be correct and we do confirm that we have a commercially viable processing pathway, we will be able to reassess numerous resources in our portfolio. I mean, this project probably opens up a whole new province of zircon and it enables Iluka to significantly solve the zircon structural deficit in an investment friendly jurisdiction.

Moving to our super secret squirrel mining method and you can see it’s a deliberately blurry picture so you can’t see what’s going on. Something that I wasn’t really all that involved with, but now that I’m inside the tent, it’s bloody exciting. We have started planning for our third trial, or T3, as we call it. Our long leads are on order and relevant people mobilised to site. I’d remind everyone, as the name suggests, this is a trial. It may not work. But I’m certainly satisfied that we have adopted the learnings from the first two trials. We’ve done what we can above ground to test and prepare for this third trial and that we do need to go back, and go back underground, to confirm our assumptions. Very similar to the Wimmera project, if our engineering assumptions are sound and the trial is successful, then we have potentially unlocked currently inaccessible, or uneconomic resources - that are currently inaccessible, or uneconomic, based on current conventional mining methods. There are more of these deposits in the Murray Basin.

Further, our mining engineers believe that the technology that we have developed and protected has potential applications in other commodities as well.
If we move a little bit this way - move west, we have started work on the pre-feasibility studies for the Atacama Project. This deposit has the potential to supplement the feed at operations at Jacinth-Ambrosia. It is in the regional reserve and it is subject to coming to an agreement with the people of the Far West Coast. But we are confident that our track record at Jacinth-Ambrosia speaks to our environmental stewardship and we enjoy a positive relationship with the Far West Coast people.

Going a long way west and turning to Sierra Leone and our announcements about Sembehun. Obviously, it’s very important that we find a development pathway that has the right balance of risk and return. We’ve effectively recycled back to the scoping stage, with some clear parameters for our project team within to work. Our immediate focus is undertaking a number of trade-off studies and analysis. For example, between different mining methods, some which are conventional, some which are used elsewhere in Africa but maybe not in mineral sands. As I’ve highlighted on the slide, examples of this might be hydraulic mining.

We’re trading off different ways of concentrating the run of mine ore. Is it done at the mine site? Is it done partially at the mine site and partially at the MSP, where we might have some front end capacity? We’re thinking about how we move people and product around. We’re also looking at what makes sense to take off balance sheet, not owning and doing everything ourselves. The initial objective is to be able to decide, early in 2020, on two to three options to progress through a PFS, into DFS and then select one to take to a DFS. I would note that much of the information that we’ve gathered in the studies to date is not wasted. It will either have direct application with some of the actions that we’re taking now, or it will be used to inform our thinking about some of the current alternatives that we are presently studying.

With that, I will hand over to Sarah.

Sarah Hodgson: Thanks Matt. Good afternoon everyone. I’m Sarah Hodgson, the General Manager of People and Sustainability. At Iluka, we have a genuine commitment to the continual improvement of our sustainability performance across the Business. In 2016, we set ourselves the objective of aligning with the International Council of Mining and Metal Sustainable Development Principles by the end of 2020. In the period to date, we have made significant progress in our practices and performance. This is demonstrated in the improvement in our ESG rating. Iluka is recognised as a leading sustainability performer on the Dow Jones Sustainability Index and we have continually improved our score over
the last five years, now ranking at the eightieth percentile of the index.

We’ve grown our approach to sustainability on the key pillars of health and safety, our people, the communities in which we operate, environmental stewardship, economic responsibility and governance. We have set public targets, across these key pillars, which is outlined in our Sustainability Report, some of which I will cover today. We put the health, safety and wellbeing of our people first. We recently undertook an independent safety culture review, which confirmed the commitment and focus our people place on safety every day. We strive to remain fatality free and minimise the severity and frequency of injuries. Our safety performance remains relatively stable, with a total recordable injury frequency rate of 3.7.

This year, we are focusing on critical control management and a review of our safety leadership program.

We continue to make good progress towards maintaining a workforce that reflects the communities in which we operate. Through our talent management and succession planning processes, we continue to support female progression through the organisation with a focus on lifting female participation in non-traditional roles. You can see Mel Henderson pictured. Those of you going on the site visit tomorrow will meet Mel. She is the Operations Manager for Cataby and Iluka’s first female Operations Manager. We work with partners to deliver ongoing Aboriginal engagement and employment outcomes. Partnerships with organisations such as the Clontarf Foundation help us to provide career pathways from schools into the workforce.

Recently, the Mid West operations at Narngulu were recognised for their performance in this area. Narngulu currently employs eight former Clontarf Foundation graduates. In Sierra Leone, females make up 8% of our workforce. Rob talked earlier about the work that they’re doing in partnership with the IFC. Sierra Rutile is committed to improving the workplace environment for women and in these partnerships and initiatives with the IFC we will look at addressing gender issues in the wider community and increasing female involvement into the business.

Our approach to environmental stewardship is based on understanding and minimising the potential impacts of our operations. Our rehab capability continues to deliver significant results. In the first half of 2019, the Group has rehabilitated 490 hectares and in Sierra Leone we have rehabilitated 150 hectares in the year to date. We maximise our performance in this area through industry leading research partnerships, upfront planning
during mine development and progressively rehabilitating land closely behind mining. Our five-year demolition program, which started in 2017, targets the removal of redundant mines and process plant infrastructure in a sustainable way.

Our focus is on responsible asset disposal and reallocation to future projects - Adele mentioned Cataby, you’ll see that tomorrow as well - reducing Iluka’s rehab liability and minimising waste.

Tragic events around the world have placed the spotlight on the responsible management of tailings facilities. Iluka continues to maintain leading practice in this area, but whilst keeping a close eye on the industry response and learnings. None of our tailings storage facilities are constructed using upstream raised methods. All are constructed at final height embankments, or raised using downstream construction. We manage our tailings storage facilities in accordance with ANCOLD’s guidelines and we provide full details of our tailings storage facilities, and our approach to their management, on our website.

The impacts of climate change are being increasingly felt around the world. Regulation and the expectation that all of our stakeholders are building and evolving at a very fast pace. Last year, we undertook a review of our climate change approach to better understand how Iluka can respond to this global challenge, both managing potential climate change risks and identifying opportunities. We want to take a measured and staged approach. We’re committed to adopting the Task Force for Climate Related Financial Disclosures - the TCFD - recommendations, over a three-year period and using that framework to shape our climate change response. Our response is framed around three key areas; resilience, opportunity and emission reduction.

Our year 1 activities have been to assess Iluka’s resilience to the physical impacts of climate change. We are undertaking climate modelling, across the Group, to identify and understand any material climate related physical risks and opportunities available to us. We have also begun exploring the identification of carbon abatement opportunities and evaluating renewable energy options to reduce our emissions footprint. We will continue to disclose our progress in this area. Thank you. I’ll now hand back to Tom.

Tom O’Leary: Thanks Sarah. I thought I’d briefly touch now on Iluka’s current approach to capital management and there’s not a lot of news here, so I’ll be brief. As we announced at the half, we’ve completed a refinancing of our debt facilities, reducing our facility limits to around $520 million, but also resetting the five-year tenure out to July 2024. Our net debt has reduced to $89 million at 30 September, down from $142 million at the half,
demonstrating the cash generating ability of the business, while still investing for growth. Our dividend framework remains unchanged with a minimum of 40% of free cash flow not required for balance sheet or investing purposes.

Moving to today’s announcement. As I noted earlier, we’ve announced a formal review of both the corporate and capital structure of Iluka. We’ve said for several years that we are always considering how to optimise value, from all of our assets, including the Mining Area C royalty. We’ve also been saying that, as tonnes from the South Flank expansion become more proximate in time, that the quality of MAC will be more fully understood and valued.

With the prospect of additional tonnes being delivered in 2021, we have, over recent times, sought to provide greater clarity on the royalty business and its earnings and potential in coming years. You would have observed our investor relations materials becoming more specific over the course of this year, in particular, in advance of the commencement, back in September, of the formal review announced today.

Again, with the increasingly near-term increase and potentially very significant cash generation, it’s entirely appropriate, I think, for Iluka to undertake the review to ensure we’re well placed to take the most appropriate steps in the interests of Iluka’s shareholders. The review considers the most appropriate corporate and capital structures of the company’s two principal businesses; its mineral sands operations and Mining Area C. The review will consider a range of options including, but not limited to, dividend policies and a potential structural separation of MAC by way of de-merger. The review will be comprehensive, considering all relevant factors including capital requirements, business plans, management and cost and tax implications of various options.

There’s no certainty that it will result in a change to current corporate or capital structures. We expect to provide an update on the review no later than the announcement of our full year results in February 2020. The company’s priority is to ensure all relevant matters are carefully and rigorously examined, so they are consistent with our historic approach to MAC, and with a disciplined approach, decisions are made in the best long-term interests of Iluka’s shareholders.

Just to provide a bit more detail around the MAC royalty. It’s a world class royalty asset. The royalty is a 1.232% of revenue from all ore mined within the royalty area and there’s an uncapped option on future discoveries of mining operations within the area. I’ll come back to that in a moment.

It provides exposure to both iron ore prices and volumes, with capacity payments of $1
million for every million tonne per annum increase in production capacity from the royalty area. The area encompasses both the current North Flank mining operations, as well as the South Flank development and any future developments in the area. The MAC royalty has delivered significant revenues to Iluka since BHP commenced operations, in excess of $850 million to date. First half 2019 royalty income saw a significant increase on the back of strong iron ore prices, with income up 41% on the prior year.

The South Flank development was approved by BHP back in June 2018. BHP has indicated that it will increase capacity in the Mining Area C hub from around 55 million dry metric tonnes per annum, to around 135 million dry metric tonnes per annum in coming years. As at September, BHP has stated the project is 50% complete. It’s a long-life high-quality iron ore deposit with a tier 1 operator in BHP.

Potential earnings from the expanded hub are, of course, dependent both on iron ore prices and foreign exchange, and a range of other factors we’ve set out there, including lump to fines ratio and so on. But they could in the range of $120 million to $240 million per year.

As to the future possibilities associated with the MAC royalty area, this slide tries to encapsulate some of the public commentary, provided by BHP in relation to this iron ore province. First, if you have a look at the map on the slide and this map is taken from BHP’s Iron Ore Pilbara Strategic Environmental Review document.

There are two potential future operations identified by BHP in its long-term plan, supported by the Tandanya and Mudlark deposits, the development of which, within the Mining Area C royalty area, will of course lead to royalty payments. Second, operations at Mining Area C are long-life. BHP has noted that operations at North Flank and South Flank development are expected to continue to about 2050 and that there’s potential for that to be extended further by future development. BHP’s closure plan for Mining Area C, noted on the left-hand side of the foot of the slide, which has been lodged with the State’s Environmental Protection Authority, notes that BHP’s long-term strategy for Mining Area C is to continue operations to 2073. That’s more than half a century away. I believe all of this can only be value accretive in the long-term.

So just to wrap up, as I said at the outset of the briefing, 2019 has been a year of delivery and we have executed a number of projects to sustain value. These projects combined with our existing assets means that our operational configuration is set to deliver value and sustain production in high value markets.
Cataby has an initial eight year mine life, sustaining synthetic rutile protection at Capel with returns underpinned by secure offtake agreements. The Ambrosia move at JA sustains Group zircon production. And expansion project at Sierra Rutile will deliver increased rutile at a time when high grade titanium markets are tight and global supply is expected to decrease. Finally, just to reiterate our commitment to our purpose to deliver sustainable value in all we do.

So with all that, I’m delighted to open up for questions.

Melissa Roberts: For those in the room and for benefit of the webcast if you wouldn’t mind stating your name and organisation before you ask a question.

Jack Gabb: (Bank of America, Analyst) Can I ask Christian first on the zircon market, I guess it was another big inventory build this quarter, obviously the long-term fundamentals are intact but when do we expect the zircon market to be more in balance and in particular when do you expect you not to be building inventory?

Christian Barbier: Thanks, Jack. Actually we are very conscious of the level of inventory that we have and we certainly want to avoid building inventory for the sake of working capital. So we started the year with a very low level of inventory, the first thing is in our supply chain, it's actually not bad to have a little bit more of a comfortable level today.

But at the same time what we have done is that we have adjusted our production settings. You see a moderate increase in inventory but we don't expect to see that increase to be excessive in the future. With the state of demand which certainly drives the level of sales and we reported before, the level of demand has been softer than what we expected at the beginning of the year.

I think it happened for a number of reasons, some reasons were expected and in particular the structural changes in the Chinese economy and as you know China takes about half of the world’s consumption of zircon. So structural changes, the soft landing of the Chinese economy, the environmental policies being implemented and the Chinese industry going up the value chain, so that was all expected.

Now, you and everybody is aware of the situation of world trade today and the US-China trade war, the sanctions against Iran which have affected consumption in the Middle East, and generally a more protectionist atmosphere everywhere in the world. That was known at the beginning of the year, what was not expected was that this would last as long as it has, to the point that we don't really know whether it's the new normal or this will change.
There are some cyclical or temporary changes in world consumption and that relates to the situation of zircon more particularly where there has been a stabilisation of prices that induces a stock reduction for most players. So overall our demand has been softer but what we see now is that the inventory draw down has mostly played its course and we expect a relatively stable situation.

Amar Naik: (L1 Capital, Analyst) Firstly congratulations on the MAC review announcement, something we are very supportive of. Can you give us further colour on if a demerger case is followed, if that goes hand-in-hand with a debt restructure or if you think the minerals sands business can organically fund its CapEx profile.

Tom O’Leary: Look, what we have said is we are undertaking the review and that will be ongoing for the next while. Clearly a number of factors are going to be part of that review, including capital and the corporate structure as you have touched on. I am sure that you and others will have many questions in relation to that review, how we are going to set dividend and how we would set the dividend policy, capital structure, tax implications and so on.

I don't plan to give a blow-by-blow description of our thinking on any of those matters or our advice nor the complexities we're going to encounter as we proceed, I really don't think that would be appropriate. That said, certainly we will keep the market informed and come back in February next year, so I think that is the point where we will be talking about the sort of matters you are touching on.

Amar Naik: (L1 Capital, Analyst) If I could have one more quickly. The zircon sales guidance implies a pretty meaningful step up in Q4. Can you give us a little colour on your forward visibility and confidence level on that step up?

Christian Barbier: Yes, as I mentioned we believe the inventory reduction has mostly played its course and as you probably know, we have a team of people on the ground talking to our customers on a daily basis. We are confident in the traction on demand for our products and this is why we confirm the guidance. As you know, we did have a slow third quarter; we expect sales in the fourth quarter to be at a higher level.

Glyn Lawcock: (UBS, Analyst) I guess I have two questions that follow on from those discussions so far. I mean, how does this review differ? You have done the review before and got to an end point where you said there is a tax leakage. What specifically is this review going to do differently to the previous review?
Then just on the zircon market, I understand what you are saying about inventories coming off, but I guess if we look at your actions to date, you held back volume and by your own admission your price has come off, maybe that's a mix of - product mix that you're having to put in, more standard and less premium. But it would appear from your peers' reports as well that prices softened this last quarter, despite you holding back. You are doing all the heavy lifting, how long do you do the heavy lifting for before you sort of say, enough is enough?

Tom O'Leary: Look, first I'd query the premise of your question in terms of us doing all the heavy lifting, I will hand over to Christian in a moment to talk about where we're at with fourth quarter sales but, as we have indicated by maintaining guidance, we have a level of confidence, but Christian may comment more.

In terms of the review, as I have said we began the formal review back in September, so it has been going a little while and we believe that a tax effective demerger may be possible. It's complex and I'm not going to be drawn into the technical details around it. But as I have said, Glyn, we will ensure the market remains updated.

Christian Barbier: About your comments about us doing the heavy lifting, the first thing I would like to say is historically Iluka has always been supplying more product into the market when there was tightness and reducing several supplies when the market was a little bit low. So we always have played historically a part in order to maintain stability in the market.

We believe that this has played positively and as you can see the level of pricing that we have has slightly come up, but we still are at a level which, actually since the inception of our reference price, we have the highest price level that we ever had at US$1,580. We are maintaining this price now for over a year and we continue to maintain it until the end of the first quarter next year.

There has always been slight variations in prices, as you said, depending on product mix and depending on the level of volume and loyalty rebates and this will continue going on. I don't think we are the only ones who have experienced a slow-down in sales and slight increase in inventories either.

Hayden Bairstow: (Macquarie, Analyst) A couple more on zircon. Just the ZIC product, do you think that impacts the ability to sell premium products and there's some sort of customer substitution as more of that becomes available?
Then with the monazite next year, that’s only nine months away, would that come in regardless and you will pull back sales of other zircon if the zircon market is a bit soft at that period of time, or will that potentially get delayed given it does have some zircon in it?

Tom O’Leary: No, that won't be delayed, others would be pulled back. Christian, do you want to talk about the substitution of ZIC versus Premium?

Christian Barbier: Well, probably you have observed that last year for example, we supplied a very high level of ZIC into the market, and that was a response to market factors. So in that case the market was hungry for zircon and that was a way for us to supply that market. We’ve withdrawn to some extent that ZIC supply to the market this year because we could see that demand was softer.

What is interesting is that the concentrate that is fed into the Chinese processing plants we can categorize into mostly two types of industries. First, zirconium chemical production, which is an application that requires Standard zircon, it does not compete with this product.

The other one is ceramics where generally the standard zircon is blended, to different degrees, with Premium zircon, so it is a complement to premium production. And this is what continues to be controlled. Now, we don’t see any direct competition. Now all of these sources of zircon of course are feeding into global consumption.

Jack Gabb: (Bank of America, Analyst) Can I just follow up on zircon pricing a little bit. Given inventories have been built up by yourself but also by your peers, should we assume prices and a mix as a similar level for, say, the next six months, is that fair assumption as inventory maybe gets drawn down again?

Christian Barbier: You are talking about the mix of products being sold?

Jack Gabb: (Bank of America, Analyst) Well, you've got zircon on all products, so when you report all products, based on pricing, given the expectation that your sales are going to recover, but also I guess elsewhere we will see more supply coming into the market as inventories come down. Should we assume that negates any potential price increase going forward, i.e. we should see pricing at flat at best going for the next three to six months?

Christian Barbier: So we have announced that price flat until the end of the first quarter.

Jack Gabb: (Bank of America, Analyst) For the premium benchmark, but on a realised price, how should we think about it going forward?
Tom O'Leary: We're not going to be guiding on that, we've guided on expectations around inventories and mix and how we're participating in the market.

Glyn Lawcock: (UBS, Analyst) Just two questions, maybe I'll ask one for Matt as well. Firstly, if you look at how much less zircon you're going to sell and then you think about inventory drawdown, if our consumption is down in the order of 200,000 tonnes on the 1.2 million tonne market, so it was been quite a big contraction, would that be a fair observation of the market?

Christian Barbier: What we have observed is that there has been quite a bit of inventory draw down recently. So the underlying demand has decreased but not as much as this. There has been probably - there's a little bit of inventory build-up during the last couple of years across the industry and especially in the downstream sectors. With the state of demand of the global economy most of the players downstream have decided to reduce the level of inventory and we actually see at the moment they have below normal levels of zircon or zircon process inventories. I think that's what you're talking about.

Glyn Lawcock: (UBS, Analyst) So the 1.2 million tonnes last year that you referred to and everyone refers to, do you think that was a true underlying demand or are we actually - you said there was inventory build so was there inventory build last year so the market is really a 1.1 million tonne market perhaps? So you are going to struggle to get - you're going to have hold back inventory and play that swing producer card for longer?

Christian Barbier: I think overall, people argue about these figures, whether you are talking about 1.1, 1.2, 1.25, overall it is a fair level, probably last year the apparent demand was higher than that and the underlying demand was around that level.

Glyn Lawcock: (UBS, Analyst) I'm just trying to understand a little bit more about Sembehun and you talked about three streams you may have by the end of the year, early next year. Can you just explain a little bit more on what you're thinking to the extent you can and given you have got an existing business there, and it's only 30 kilometres between Sembehun and the existing business, how easy is it just to use the existing business? So I'm trying to understand that.

Then I still struggle, I mean this is a 50 year business, you said it's 50 years old yet we have still got logistics problems. Why does a business that is 50 years old not able to have some sort of normality?

Matthew Blackwell: I'll take the easy question first.
Glyn Lawcock: (UBS, Analyst) In that, why should things changed if 50 years suggest it can't change.

Matthew Blackwell: Look, one of the things, in terms of the project it is 30 kilometres as the crow flies, there are hills, there's a river, there's jungle, there's villages, it's not like driving from Cataby to Gingin or something like that. There is no infrastructure there.

So part of the project development is about finding an infrastructure solution and access solution that makes sense for the size of the project. That is why, as I talked about one of the things that we are looking at, is how we move product and people. That is a key - that is one of the work streams. But I talked about two to three options.

Ideally when you go through scoping, scoping is about looking at - it's a high level estimate as to how the project could look, what works and what might not work, when you move into PFS it's really about - you're deciding what it could be and then in DFS it is defining what it will be - to take to execute. So you don't want to getting into a PFS and be looking at too many different options, you will waste money and your time.

These trade-off assessments, we will have a pretty clear view by the end of the year and going into early next year as to what can work within the parameters that we've set and what won't work, just physically it's not going to work. We're engaging where we have got the internal capabilities, we're using capabilities where it might be a mining method that we are not as familiar with, say hydraulic mining, others do it, which is a low capital intensity mining method used in mineral sands, used elsewhere in Africa extensively. We don't use it. We have gone to who we think are the best people in the world to give us a view on what would be the cost and likely success. Something like that if it's new we do it right. If that's something we want to go ahead with.

The other work stream, so there's the mining methods, we've got dry mining, dozer push, truck and shovel and there are different ways to do that, as I said. Then the other key workstream is how you do the - essentially what is called bulk mass reduction in the mining industry. How do you go from a grade of 1.5% say, and bring that concentrate up to a higher grade for something that can be fed into the front of a mineral separation plant.

We are not wedded to using the existing assets if there are assets overseas that it makes more sense to export out a material and have it processed somewhere else. We're not wedded to that, we're looking at all sorts of different options and we will do what is the most capital efficient and gives us the best risk reward trade off. That said, where we do
have existing assets there, and it makes sense to try and use this. Does that help?

Glyn Lawcock: (UBS, Analyst) I guess a little bit. I guess I am struggling with a 50 year old business that is still not working. You talk about logistics and unskilled labour et cetera. I mean, it hasn't changed in the two years you have owned it; it hasn't seemed to have moved in 50 years, why will it change in the next five?

Tom O'Leary: I think that was the harder question, Rob?

Rob Hattingh: Look, I think it's a very good question, why do we think we can make a difference? Just a bit of a context, it really has always been a standalone mine, so we have never had the critical mass, either purchasing power or intellectual critical mass in terms of, having practiced in other areas they could apply and learn from each other. So that has certainly been the case and I think it has probably taken us a little bit longer to get over that task than we thought we would.

But are putting in, and have put in a number of things that makes it better. For example, we are just literally going live in another two weeks on our new Pronto ERP, so effectively will have an improved stores maintenance and reorder process. Everything is done by hand and it's a very old, colonial style approach that they have, it has taken us time to bring it up to modern standards.

So just literally understanding what you have got in the stores and how long it takes to get there, it's a very simple thing today with any modern operation but it was just hard to get that up and running. So we are making gains every day. September was our best month since November '17 and October is at this stage better than September, so we are making gains, it's just slow.

Melissa Roberts: I've had a few questions that have come through the webcast from Rahul Anand at Morgan Stanley, a couple have been covered but this is probably one for Christian. You talked about thinner tiles and grinding impacting zircon demand in 2019, is this not a trend going forward which will lower zircon demand?

Christian Barbier: Well, yes, it is and no it is not at the same time. It is a trend that has already played its course to a certain extent and it is something that has been practiced by players in the industry for a number of years, they have been doing it probably a little bit more recently, due to higher zircon prices.

But at the same time what is happening with thinner tiles is that there are also a number of these thinner tiles that need a stronger body and in order to strengthen the body it uses
zircon too. So people have adapted the combination using a number of materials, depending on the end products that they need. So yes, this is something that people have been using, to reduce their zircon consumption, but it's not something new, it has been playing out over the last three, four years regularly, and now it is relatively stable.

Paul McTaggart: (Citi, Analyst) Eneabba phase 2, so Eneabba phase 1 is relatively modest, $10 million CapEx is not really going to change the bottom line much. In phase 2, you mentioned that you are looking for much better margins. How should we think about that, is that a relatively simple process in terms of treatment? Is it a material step up on phase 1 CapEx, are we looking for maybe 100,000 tonnes, a doubling of output, and how should we think about the uplift to value, realised value of the product.

Tom O'Leary: It's early days to be talking about the uplift in realised value, the capital is not an order of magnitude higher, but the complexity is higher, but again not beyond the wit of man. There are some environmental approval processes to go through, so it will take some time. But really we are taking it step by step. We will be giving a bit more detail in due course.

Matthew Blackwell: I think that its impact, not a significant increase. But what it does do is that if we are taking it, as we have said on the screen or in the presentation, going from a concentrate which we have given some sort of guidance around the amount of material that we have got now, to a 85% concentrate and that is almost monazite. And, then you sell the zircon separately and you're separating out the different processes, but it's not complicated. It's in an area where we currently operate.

Ewan Galloway: (Perennial Value Management, Analyst) A couple of quick questions. On the zircon side, given where demand is, have you seen much pressure from end customers in terms of securing a discount to realised price?

And on the IFC investment numbers, presumably you are waiting to come, from all I can see they have their own form of standards, could you discuss those conditions a bit more and any impediment to the expansion itself?

Tom O'Leary: The zircon question I didn’t quite catch?

Ewan Galloway: (Perennial Value Management, Analyst) Has there been aggressive discounting to customers to secure volumes?

Christian Barbier: Over the life of our current pricing system with a reference price, we have constantly adapted our pricing of discounts, our geographic and product mix situation
according to the requirements of the markets, and we are doing that. So it is true that we have slightly increased this and you have seen that on the chart.

Talking about aggressive discounting, no, if it was aggressive discounting we would not be maintaining our reference price at the level where it is. What we have seen, and I again I think we mentioned that before, the intent of our pricing is to provide visibility and stability to our customers and most of them have been very supportive of that. Of course they are under pressure from their end markets in terms of costs, but they also realise that stability in pricing is good for business. While high fluctuations are generally demand destructive.

Tom O'Leary: On the second question, Ewan, on the IFC, the timing of the second instalment is on announcement of early works at Sembehun in the 18 months after the first instalment. So the second question you posed about IFC, is it an impediment given their performance standards and I would have to say no, it's quite the reverse.

They're helpful in terms of the approval process and the like, because Sierra Leone's environmental standards are modelled around IFC performance standards in any event. So it is pretty convenient. But I would also add, are they being an impediment to the Sembehun development generally? You know, again quite the reverse, because when Matt has assembled a group of experts from around Iluka and elsewhere to review alternatives at Sembehun, and the IFC representative attended that workshop to begin to evaluate the different options for Sembehun. So the IFC, as a partner of ours for the development attended, it's a great value add having them on board.

Ewan Galloway: (Perennial Value Management, Analyst) So there's nothing basically stopping that $40 million?

Tom O'Leary: Well, as I say, the timing of the second instalment is on announcement of early works, within 18 months. It is all set out in the announcement from 6 June.

Hayden Bairstow: (Macquarie, Analyst) Just on SR1, the plans there how are you thinking about ilmenite supply from, obviously Cataby produces more than the kiln 2 [SR2] can take I guess. Do you stockpile that to ensure longevity of SR2 over the life of Cataby, and SR1 is more one of these projects coming up, or was it a third party ore source. What is the thought process around that?

Tom O'Leary: That is the thought process pretty much as you have identified. So there are broadly the three options, it's over-production from Cataby, or third parties within or outside of Australia.
Stefan Hansen: (Nikko, Analyst) A follow-on from that question. You mentioned an 8.5 year resource plus four years. Can you talk about how that additional four years fits in, like where it would fit into the mine plan, whether it can be sort of brought forward to bring into an SR1?

Tom O'Leary: I can't really update you much at the moment, Stefan, I'm afraid, but they are some of the things we think about that could be accelerated a bit, or merely an extension of Cataby for a third kiln campaign.

Stefan Hansen: (Nikko, Analyst) I've just got a few more questions. Just for Christian, on rutile, if you could just talk through the improving prices that has been reported that that you are expecting this year. Is that driven by the pigment industry, willing to pay higher prices for rutile and probably helped on the supply side by the issues you are having at Sierra Leone, or is there sort of element of mix, selling more into the higher value welding markets and metal markets.

Christian Barbier: Well, you have seen on one of those slides the situation of supply and demand for rutile so definitely there is an element of tightness in the rutile market. At the same time, the chloride pigment production requires more high grade ore so it is - the positive trend for prices does not only benefit rutile but it is also positive for synthetic rutile and for other high grade feedstocks like slag. All of these prices are on the positive pricing trend at the moment.

Stefan Hansen: (Nikko, Analyst) Specifically though I'm wondering are the price improvements coming from pigment customers or are they partially a result of selling more than your typical 8% of the welding market? Because I think the welding market...

Christian Barbier: All applications see an increase in market prices, whether it is pigment or welding or metal, all of these applications actually have the positive pricing trend.

Tom O'Leary: It's not really driven by the mix.

Stefan Hansen: (Nikko, Analyst) Yes, that's probably what I'm asking, thanks. Also, Christian, can I just get your view on China's ability to be self-sufficient in feedstocks, is Lomon's sort of the key driver of chloride capacity, they seem to have the ambition that they're going to be self-sufficient. Do you think it's possible for them to get to that point, maybe not Lomon but China as a whole?

Christian Barbier: Our point is that we believe we will be able to contribute to their requirements of high-grade feedstocks. You can see on the sulphate side they are self-
sufficient, on the chloride side they'll probably become partly self-sufficient. They would also have to import high grade feedstocks and they have started, hence the ability for us to supply samples.

Jack Gabb: (Bank of America, Analyst) Can I just ask one more on point of view Matt just in terms of timing. Iluka has a lot of projects, you had Cataby a decade before making a decision, I guess there is still a lot of uncertainty around projects that you have still got, and I guess the first one in Sembehun then you're talking about potential trial, PFS, DFS, can you give us a sense of when a decision could be made on that mine? Particularly given the life of Lanti and Gangama is not extensive at this point, so you want to make sure that that is commissioning before or very close to the end of those two mines.

Then secondly, Wimmera where are we at with tailings permitting, has that process started yet? It's presumably a very lengthy process.

Matthew Blackwell: So on Sembehun, we, as I said, we're back to the sort of the scoping stage. Based on the current views on mining plans, it's actually difficult to say whether there will be a gap or not, and it's for a couple of reasons. One is that we don't exactly know how long the execution will be because we haven't decided what we are going to build yet. There are ways to accelerate any execution in Africa but it might come at a slight charge because you operate through the wet season versus not building through the wet season. You have to make those decisions, you weigh that cost benefit.

Rob's got these extensions that he talked about and at a high level at the moment we don't see a gap for both mines, acknowledging that one of the mines finishes before the other mine. Then how those other satellite deposits come into fill what may or may not be a gap in the MSP, we don't know whether there will be at the moment, a gap, but they finish at different times. There will be things within our control that we can do. That would be the first comment I'd make.

So in terms of something like Wimmera, we're in the PFS, we have started that environmental permitting process. It has been referred, that can be a couple of year process. That is not inconsistent nor currently the critical path on the project, so I guess I'd make that - it's not on the critical path today. In terms of just the overall portfolio or the pipeline of projects, I think one of the things to think about is that ideally what a company wants to do is get yourself in a position where you can make choices.

So progress the projects to a point where you have sufficient understanding of the cost, the opportunity, the risks and then be able to pick the best ones to progress at a certain
period of time. So it doesn't necessarily mean you take all these projects, you lay them on top of each other and say, this is a whole execute phase that you will do in one go.

Mathew Hodge: (Morningstar, Analyst) Presumably if you are reviewing MAC, there's potentially a view that maybe the market is not pricing that correctly, so as part of the review would you consider buy-backs as an option to close that theoretical gap?

My other question is on zircon, you guys have been talking about industry supply under pressure for quite some time, I'm just wondering are there any risks on the supply side that you see that are emerging, or that story is basically the same as you have been telling it for some time now?

Tom O'Leary: I will hand over to Christian on the supply side of the story, which I think is broadly pretty similar, a bit of inventory build may have the effect that it takes longer to play out. The first question as to whether we'd contemplate a buyback to close that gap you identify in terms of valuation for MAC, I don't think so, no.

Christian Barbier: I'm not sure exactly what you are referring to, probably what we were saying about the supply deficit emerging in the next few years.

Mathew Hodge: (Morningstar, Analyst) Yes, longer term.

Christian Barbier: So this is what we have shown also on that slide. There is going to be a decline in production and we still see that coming, and the naturally declining grades of the existing mines, given we open new projects, we've just started our Cataby project as you have seen from Matt, we have a portfolio project to meet some of these requirements, there will be some other projects. We don't believe in the structural deficit but there will be a need for new projects. The view has not been changed.

Stuart Dodd: (Renaissance Smaller Companies Analyst) A question for you, Tom, you're getting away too easily. Last strategy day was two days ago and you gave a three year outlook, with no clear outlook or any such guidance or anything this year. Why?

Tom O'Leary: I think there is a level of uncertainty in the marketplace generally brought about by global market conditions where it would be inappropriate to put up a three-year outlook for the sales for example. But on production, we have actually given guidance around Cataby '19 to '23 and beyond, when it was approved.

We have given guidance for JA with the Ambrosia mine move, guidance that we can take zircon production out to 2022, for the group at a steady sort of level, and also have the ability to increase production with our swing capacity in ZIC by a very significant amount.
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each year depending on market conditions.

So we have talked about changing our production settings at the moment in zircon and largely around JA rather than Eneabba or Cataby for example. So we will provide guidance at the usual time. But I think we provide a clear message to the market about where we're heading.

Hayden Bairstow: (Macquarie, Analyst) Just on Sierra Rutile, if Sembehun is back into scoping stage, I think you're still talking about some sort of pathway decision for the next year. Can you just remind us, the two assets as it sits, what is the sort of peak production capacity without Sembehun, would it be - obviously you can scale it up as you go longer term. What do we see it capped at until that actually comes on?

Tom O'Leary: Yes, we have talked about that a little bit before, the mineral separation plant is broadly accepted to be capped at about 175,000 tonnes per annum. But we will provide a bit of guidance in January about what level we expect next year.

Hayden Bairstow: (Macquarie, Analyst) So are you aiming for Sembehun coming on after that but until it does it's capped for a subsequent couple of years as well.

Tom O'Leary: Yes.

Glyn Lawcock: (UBS, Analyst) Just on Eneabba, I think back at the results at the half year you said maybe on the strategy day you would give us more help on trying to value the revenue stream, can you or no? It doesn't feel like you can.

Tom O'Leary: I think people have started to get to right. Is that right, Mel?

Melissa Roberts: Yes, I think so.

Glyn Lawcock: (UBS, Analyst) Getting close then.

Melissa Roberts: Yes they are getting there.

Paul McTaggart: (Citi, Analyst) Paul McTaggart here. I kind of have to ask this question, what were the learnings out of Sierra Rutile? I mean, it hasn't really panned out as anticipated, what do you think could have been done better in early evaluation? What were the key take learnings out of this process?

Tom O'Leary: Look, I think probably a key one is that we are operating in a particularly challenging environment in Sierra Leone and I think that was probably underestimated. For a company that has historically operated in Australia, and in the US, to take on an involvement in Sierra Leone, there's an awful lot of lessons, an infinite number of lessons
that we have learnt and that we continue to learn today.

Rob earlier discussed a number of the areas, where we’ve struggled to attract personnel, the skill base of the local workforce, community interactions and the time taken with government interactions rather than operational matters. So I think that was significantly underestimated, the difficulty of operating in such a challenging environment.

Any others? Okay, well look, thank you all for your attendance today. Anything else on the line - no, okay. Thank you all for your attendance today and we look forward to seeing you this evening or at Cataby tomorrow. Thank you.

Operator: Ladies and gentlemen, this concludes our conference today, thank you for participating, you may now disconnect.

End of Transcript