

# **Rainbow Rare Earths Shareholder Call 14-03-2019**

## **1377383459 12.00 RG**

### **Speaker Key:**

CO           Coordinator – Rhona  
ME           Martin Eales  
JW           Jim Wynn

CO           Hello and welcome to the Rainbow Rare Earths shareholders' call. My name is Rhona, and I will be your coordinator for today's event. For the duration of the call, you will be on listen only. However, you will have the opportunity to ask questions. This can be done via the Webex.

00:00:26

If, at any point, you require assistance, please press star, zero on your telephone keypad, and you will be connected to an operator. I am now handing you over to your hosts, Martin Eales and Jim Wynn, to begin today's conference. Thank you.

ME           Good morning, everybody. This is Martin Eales, CEO of Rainbow, speaking, and I'm joined by our CFO, Jim Wynn. Thanks for joining the call this morning. Hopefully, you can see the slides on your screens. We thought it was important to reiterate the key aspects of our projects for those who are unaware.

And we characterise these the strong, fundamental project. Firstly, we should never forget that grade is what makes this project so exciting. Around the world, there are numerous rare earth deposits, very few mines, but a number of deposits where average grades in a carbonatite rare earth deposit typically run at 1% to 5% total rare earth oxides, TREO.

00:01:31

We have a stockwork of veins at our deposit in Burundi that, on average, run at 47% to 67%. Many, many times more the average grade out there. This means we can mine low volumes for low extraction cost, and critically, we are able to get into production for a very low capital expenditure capex number. We are great believers in the fundamentals for rare earth demand.

I'll come on to describe which products, in particular, are using rare earths, but it's really connected with green technology, such as electric vehicles, and wind turbines, which drive demands for rare earth magnets. We think we've got a potential world class deposit.

Not only do we have this almost freakishly high grade of TREO in the ground, but as well come on to discuss in our maiden resource update, we think we may have found what could be the tip of the iceberg of a much larger deposit, albeit lower

grade, but many, many times of total rare earths we found in the initial drilling campaign.

Critically, we are the only asset in production in Africa; there are no other rare earth mines in Africa. There is one in Australia, and the rest are in China, albeit with limited production from the old mountain pass mine in America, now owned by the Chinese.

00:03:00

As the world increasingly focuses on critical materials, our geographic location outside of China could be extremely strategically important for our customers and investors. We have announced a downstream partnership with the investment company TechMet to investigate the economics of being able to process our own concentrate, and thereby benefit from the huge step-up in value of separated rare earths above the prices we sell our concentrate for at the moment.

This is a longer term project, but progress has been very impressive so far with our friends in TechMet, and we look forward to updating shareholders on this over the next 12 to 18 months. Critically, our mine at the moment is environmentally sound.

There are many mines, particularly in China at the moment, where environmental damage is being done by the use of acids. Let's not forget our mine uses no explosives, no chemicals, no reagents. We are simply extracting ore, crushing, separating, and exporting. So, very, very little environmental damage.

So, why rare earths? I said that we are very excited about the fundamentals from this market. If you look at any newspaper any day of the week, you will see a story about electric vehicles. They are coming. Countries around the world increasingly are legislating for the removal of traditional combustion engine vehicles, both petrol and diesel. And countries are shifting, ever quick, to electric vehicles.

00:04:45

Why is that important? It's because every electric vehicle around the world, pretty much 99% plus of all vehicles out there are using rare earth magnets in their motors. People get excited about the battery materials in electric vehicles; lithium, cobalt, nickel, etc.

The same demand drivers are in existence for rare earths, because there is nothing stronger at the moment than a rare earth magnet, including neodymium and praseodymium. And I'll come on to the share of our basket that those particular rare earths hold on a later slide.

But rare earths have many other uses than electric vehicles, because the same magnets are in speakers, in computer hard disk drives in smartphones, in wind turbines, and some of the rare earths, such as lanthanum and cerium, which have lower values per kilo or per tonne, have larger uses, in terms of tonnage demand.

So, lanthanum is used in fuel refining. Cerium is used in glass making and glass polishing. So, in the rare earth market by tonnage, those lighter rare earths have greater demand, but by value, it's the magnets materials that are really shifting demand in the future. And it's really driven by this use of magnets in vehicles and wind turbines.

00:06:15

Moving on a slide. Slide four, highlights from our interim announcement that went out on Tuesday this week. We'll come on to each of these sections a little bit more, but we want to talk, in the main, about the maiden resource announcement that came out in December. Potentially, this was lost in the pre-Christmas news flow, but we are very excited about what we're able to announce.

Let's not forget that Rainbow managed to IPO and get into production without a formal resource statement, very unusually. So, we are, to some extent, becoming more normal. And this is just the first step of our resource investigation and announcement. So, we are very excited about what we've been able to announce so far.

In the period to December, we were able to successfully raise more funds for the development of the project, a placing in August, and a facility announced at the end of January with Lind Partners, which provides great flexibility on our financing needs as we ramp up over the next few months.

We announced consistent production of rare earth concentrate and export compared to the previous six months, slightly behind where we wanted to be, but we were very pleased with feedback from customers. And we'll come on to talk about that customer demand a bit later.

00:07:54

And the second mining area, Murambi, opened for extraction of ore in December. It's in the middle of ramp-up now, and that is the second of what will be multiple mining areas, and we'll come on to talk about the plans for mining area numbers three and four later this year in due course.

And really, that strategy drives what we're planning to do in the rest of 2019, which is to get more ore tonnes out of the ground from the new mining areas, and as soon as possible, get deposited EBITDA and profitability before the end of 2019. I'll hand over to Jim Wynn, our CFO, to talk through some of the key points from the financial statement to the end of December.

JW

Thank you, Martin. Just looking at the income statement on slide five, the first thing to notice is that the income statement for the six months to the 31<sup>st</sup> December 2018 does look a little bit different from previous income statements. The reason for this is that we recognise commercial production from the 1<sup>st</sup> July to the start of the period.

And what that means, in accounting terms, is that all production costs related to the operation are expensed through the P&L. So, you have a full top to bottom P&L. In previous periods, those costs would have been capitalised as part of the construction costs. And it really just recognises the period where we conclude that the construction phase is at an end, and we're now in ramp-up.

00:09:29

Revenue, therefore, for the period that was recognised on 650 tonnes of concentrate sold, that amounted to \$1.2 million worth of revenue. There was a gross margin loss of around about \$1.5 million. We recognised that our production costs are currently higher than our sales revenues, and that is due to the fact that we are in ramp-up.

And as Martin alluded to just now, we are opening up new pits to increase our production, but for the six months to December last year, we were really producing exclusively from the very first pit, Gasagwe. So, we expect that to reverse in future periods. Looking at other items in the P&L.

Admin expenses reflects corporate costs in London, and listing costs. They're slightly lower than previous periods, so we've tightened our belts a little bit in response to the slightly slower ramp-up than we were expecting. And you can see that in our expense line. EBITDA was a negative 1.4, which reflects the effects of all the above items.

And we also recognised, in the period, a depreciation charge for the first time. Again, this is connected to the fact that we recognise commercial production to be done in the period, so we can start depreciating the assets that we've constructed. So, that's why it looks a bit larger than previous periods. The total lost for the period was just over \$3 million.

00:11:04

Moving on to the balance sheet on the next slide. I won't dwell too long on this. The balance sheet is relatively straightforward. The non-current assets are basically the construction costs of the project, and it has been depreciated slightly since the 30<sup>th</sup> June, as I mentioned.

There have been some additions, but it's around about \$11 million. Other payables include the \$0.9 million overdraft facility locally to Burundi, that's borrowing included in that. Other payables include trade creditors in Burundi, as well.

Moving on to slide seven, which is cash flow. This shows that we had a net operating activity cash loss of \$1.2 million, so that is, effectively, the cash consumed in our operations for the reasons described earlier. Essentially, production costs are slightly higher than sales revenues. We spent about \$1.1 million on capex.

These were items, such as opening up the new pit at Murambi, which we were able to do at the end of the period. We actually started production there right at the end of December. So, the cost of that is included in the capex line, plus all the exploration work to do with the joint resource that Martin mentioned earlier. As you may recall, in August, we completed an equity placing of around \$2 million, just less than \$2 million net of costs.

00:13:20

ME Thank you, Jim. Although the numbers I mentioned earlier, what we've done on the next slide, eight, is to summarise our quarterly production and sales performance. As you'll see, very consistent. We would have liked to have increased slightly more quickly, but the key things to note are we successfully negotiated the totally unknown export of rare earth materials from Burundi over the year.

The processes are working very well with the authorities, in terms of getting trucks in and out. And our sales process with our trading partner, thyssenkrupp, is working very efficiently. It works on the basis that we truck our material to the east coast; we're using the port of Mombasa in Kenya.

And we sell or transfer title to thyssenkrupp at port, and typically receive the bulk of our cash within a week to two weeks. So, we're not waiting for long-term shipments of material to get to the other side of the world, or don't take any credit risk on customers on the other side of the world.

So, from a cash flow perspective, the sales process works very well for us. I'd like to talk a little bit about the maiden JORC announcement in December. If you look closely at the photo, here on page nine, if you look to the right, you'll see a little brown smudge, which is the top of the Gasagwe pit.

00:14:50

If you look to the very extreme left, you'll see a square or rectangle on the side of the hill, which is Kiyenzi. So, the two are only a couple of kilometres apart as the crow flies. Everything within the deposit that we intend to mine in the future is relatively close together. So, in terms of the extent of the infrastructure we need to open new pits, it's not particularly excessive [?] compared to many other mining projects.

To summarise what we've announced, and this is why we're so excited. Firstly, the key thing to note is within our mining license, we have subdivided it into 28 prospects. This maiden resource only includes four of those 28 prospects, and what we have discovered, in the first three, we reconfirmed the remaining ore of Gasagwe.

We've added to it, Murambi, mining area number two. And then Gomvyi Centre, which we expect to open before the end of 2019. This confirms what we anticipated, which is more stockwork of high grade veins. So, you'll see there, in

the mid 50% TREO, which is very similar to what we've been mining so far, another resource of 12,491 tonnes of ore.

That represents, using that average grade, a contained TREO of 6,859 tonnes. So, roughly, assuming a target mining rate of getting to 5,000 or 6,000 tonnes a year of concentrate, that's at least the next two years' feed stock. We anticipate it will be more than that, and we anticipate we'll be adding more resources from the other deposits in due course, as we keep refilling the ore tonnes to be mined.

00:16:40

The exciting news, and this is something we weren't particularly expecting, was at Kiyenzi, the fourth area. Where we had previously announced quite thick breccia deposits, which are, in simple terms because I'm no geologist, expanded veins or dispersed veins.

So, much thicker than the high grade veins, but because the veins are slightly exploded, on average, the breccia has lower grade of typically 15% to 20% compared to our 50% plus. But alongside those breccias, we actually found in the host rock a great extended area of mineralisation.

So, this is why Kiyenzi, and it's open in all directions for more drilling, we've been able to announce a 2.2 average TREO grade of over a million tonnes. Now, we are intending to mine Kiyenzi in the second half of this year. It will be the higher grade breccia areas.

But this warrants much more exploration and drilling, because don't forget, every other carbonatite around the world has a grade of 1% to 5%. So, this 2.2 average sits squarely in a very typical largescale rare earth deposit. So, we are excited about the possibilities here, and it warrants further work. In the meantime, we shall carry on mining the high grade veins and producing the concentrate product.

00:18:08

Just to summarise, on page 11, you may have seen versions of this slide before. But we have achieved a huge amount in the two years since we've been a listed company. All the things across the top there, many of which, and I've sat in many meetings with potential investors who are nervous about some of these things, didn't they could be done and we've done them.

Which is opening a mine, developing a product that can be sold, achieving exports of that product, realising the dollar revenue from that product in our own bank account, and spending those dollars. All of which have significantly de-risked this project.

We announced the JORC results [?], you can see on the bottom left, in December, and the plan for this year now is to increase production to break even. Spread those fixed costs across more tonnes, which drives down the production cost per tonne, and therefore, gives us break even profitability. That is the plan for the rest of this year.

Then moving on, just to give you a bit more detail about the pits in production. There's a new photo on the next slide of Gasagwe. Don't forget, this is the first mining area. Most work has been done here. But it's illustrative of what each mining area will be. Effectively, we are mining a hill to extract the veins from inside it.

00:19:30

So, there is stripping, and looking in the near side of that photo, the lower level is the waste dump, so the stripped waste gets moved into the valley, and we take down the vertical height of the hill. At the end, and each one has an expected life of two to four years, depending on the ore resources in each hill, what we're left with is a much flatter area that will green over very quickly.

And it will be much more suitable for agriculture than previously. So, the local population has a vested interest, because we take away steep slopes and we leave an expanded area of much flatter ground, much more suitable for handing back to people for farming when we're finished.

As Jim said, the majority of tonnes produced and exported in the six months came from Gasagwe, because Murambi opened up in December, ready for extraction of ore. You can see there, within the mining license, the locations of Gasagwe and Murambi.

But this shot, and we've used this many times, all the blue dots there are pinpoints of our rarer discoveries. And you can see that around the dots, we've colour coded rectangles and squares. Those add up to our 28 mineralised areas that we see as the future mining zones.

00:21:00

The next shot is a closer example of how mining works in practise. You'll see excavators there. The excavators do the bulk of the stripping, put the waste into haul trucks, which take the waste to the dump. And by doing that stripping, we've exposed the veins, which are extracted with manual labour.

It's a reasonably delicate job, and actually, we prevent dilution of the head fee by using the manual extraction method for the veins, and therefore, save on operating costs at the plant, because we do minimise that dilution. The new shot of Murambi, this is within the last month. You'll see it's looking similar to Gasagwe now.

We've done quite a lot of pre-stripping there up to December, and ore tonnes started being fed to the plant just before the end of the period. We tend to model, in our examples, similar amounts of expected ore on a monthly basis from Murambi.

But as we've discovered, ore tonnes, just due to the vagaries of the veins themselves, don't follow a nice, straight line, in terms of tonnages per month. Which is why we want to mitigate the inconsistencies of what each pit can deliver by having more pits.

The economies of scale benefit, but also, the consistency of ores in the plant is improved by operating multiple faces. And that's why the plan has been developed that we have at the moment. So, the additional mining areas, we've circled in red. On the next slide, you can see, again, as I said earlier, as the crow flies, these areas are not far apart.

00:22:33

It means that we do benefit from the proximity, in terms of collecting ore to take down to the plant, which is down by the main road, just south of Bujumbura. We expect to open Kiyenzi and Gomvyi before the end of 2019. Work is afoot at the moment. Certainly, Kiyenzi will probably be first.

We've been through the process of calculating all the compensation needed for the access road, the mining area, the waste dump, all those calculations are now approved. And we'll move to start cutting the access road as soon as possible, probably before the mid-point of the year, so Kiyenzi is delivering ore in Q3, with Gomvyi following behind in Q4.

Just to reiterate about the plant. We announced in the interim statement, of course, the plant was only fully commissioned in the first half of calendar 2018. Remember, this was a brand new turnkey operation. We're very happy with the way it works.

And the key thing to note is, as I said earlier, this is not a complicated plant. There are no chemicals, no reagents. It's simple crushing and gravity separation. It's working very well. Previously, it had a lot of capacity, so it doesn't need further investment to cater for our ramp-up plans.

00:24:01

Then just to give a bit of background on the product. We often receive questions about this, because we quote, in all our announcements, a reference basket price. The basket of our concentrate, in terms of rare earth, is fairly consistent, and it's mirrored in the pie chart there.

Each of those wedges is, typically, no more than 1%, 2%, or 3% difference on every batch that we sell, or even every bag we sell. So, we tend to have high 70%, or around 80%, cerium and lanthanum. Don't forget, these products have uses, they have prices, but on a per kilogram or per tonne basis, it's neodymium and praseodymium, which drive the bulk of our value.

So, the sliver wedge of 4% and the brown wedge of 15%, roughly 19% of our rare earths are NDPR. It's over 80% of the value. Those are the elements that the customers are really seeking. It goes into the rare earth magnets, as I said, and the NDPR prices are proxy for our basket is the best way to measure it.

But we do announce the overall basket price on a regular basis. And you'll see, at the moment, the basket price is \$11.55 a kilo, or \$11,500 per tonne. Why do we sell for approximately \$2,000 a tonne? Well, you have to remember that the



basket price is done on a 100% basis, so immediately, given our average grade, it's 58% to 60% times or multiply that \$11,500 by the grade, which brings it down to the metal content in each bag or each batch of concentrate.

00:25:48

And then we negotiate, with the customers, a discount to reflect the fact that the material needs processing. So, it's very simple to get from the basket price to the selling price. And we have announced that roughly 70% is the discount we negotiate with customers, which is why our \$11,500 per tonne, or \$11.5 per kilo, comes down to roughly \$2,000 a tonne that we sell.

You'll see, in the graph at the bottom left hand side, that the basket price, largely, has remained pretty much flat, certainly over the last four, five, six months. This doesn't reflect the fundamentals of the market we believe in or rare earth forecasters believe in. because a lot of them are [?] coming, and very limited short term supply, so people are very positive about the short to mid-term expectations for rare earth prices.

We announced, in August, our partnership with TechMet. And over the last six months or so, since we've been working with the, we've been pleased at the progress it's made. We've conducted a scoping study to review technologies available to us first for processing our ore.

And then we intend to move on to the full definitive feasibility study, which TechMet will fund, to fully calculate the economics of moving into building our own plant for separation of our ore, or further processing and then potentially separation, to sell a much higher value product.

00:27:33

Don't forget, as I said, we are negotiating approximately 70% discount on our metal content at the moment. So, if we catch some or all of that 70%, the economics could be extremely attractive. We have received one question on TechMet specifically, which is on timescale. As I said, we are anticipating approximately 12 to 18 months for completion of the DFS.

What are the company's objectives? Near term, as we have stressed repeatedly, this project needs to break even. We have taken slightly longer in the ramp-up than we anticipated, but we have a clear plan now to reach breakeven and profitability before the end of 2019. At current prices, as we've announced, the breakeven point is roughly 250 tonnes of concentrate sales per month.

In the period until the end of December, we were doing just under half of that per month, about 100 tonnes a month. We expect to bring on the new production to significantly increase the ore going into the plant, which should enable us to achieve those targets. We want to do more exploration. Kiyenzi certainly warrants it.

As I said, the lower grade largescale deposit is open in all directions, so we plan to do a drilling campaign on that as funds allow. And then reaching breakeven and profitability allows us to reinvest the cash flow back into the mining areas, potentially to go from four mining areas up to five and six mining areas as funds allow.

00:29:17

This project benefits hugely from economies of scale, because we do have a relatively high fixed cost element, the plant, and staff, and actually, by changing the denominator of tonnes per month from 100 to 250, it makes a huge difference in costs per tonne. And as I said, another key part of the strategy for the next two years is completing the DFS with TechMet.

So, we are still very positive about this project. We believe we've got a fantastic asset. Crucially, we are in production, which many, if not all of the other junior rare earth projects around the world are yet to achieve. They generally all need largescale capex to achieve the goal of production.

Just moving on to a few of the questions that have come in while I've been speaking. There has been a request for production numbers for the first two months of 2019. We will announce, as is usual, the quarterly numbers next month, so we can't give you specific numbers on those yet.

Second question; why are we loss making, despite the high grades? Well, as I said, it comes down to economies of scale. As production increases, we divide those costs over more tonnes. And as we say, above 250 tonnes a month of concentrate sales at current prices, we expect to achieve profitability.

00:30:51

Where do we think the rare earth market is heading? How do we see basket value developing? As I said, we are robustly positive about the future of rare earth prices. As a good example, one of our junior competitor companies in rare earths with a project in Australia published an updated DFS just this week.

And they have announced a current basket price of circa \$25 a kilo, but in their life of mine plan used for the DFS, they've used a basket price of \$37 a kilo. Now, that is not made up. That's based on forecasts from third party rare earth experts. And it just shows that projects out there seeking finance are not shy of using significantly higher numbers for rare earth prices out there.

So, we are very excited about the future, as we think we're in the right sector. This is a critical commodity and there's not a lot of near-term supply. The next question; what needs to be done to achieve the ramp-up in production? Well, that's really, as I said, developing mining area numbers three and four, which are Kiyenzi and Gomvyi.

And based on our recent experience of Murambi, each new pit takes about six to nine months to develop. So, that's why we expect both of those to be on stream

by the end of the year. We do need to go through a process of compensation evaluation, environmental certification, and then cutting things like access roads to the site and the waste dumps, and getting each site ready. So, based on recent experience, we expect those two new areas to be in production by the end of the year.

00:32:44

The final question I have through the system is; when will we start seeing the effects of increased production from Murambi? Well, as we've said, the first ore really only came out in December, so we're still in ramp-up. We'd expect to, in the first half of this year, to see the benefits of Murambi ramp-up.

We're just finishing off the waste dump now, and when that's finished then we can really shift waste on the full 100% plan basis. So, we'll probably see both in Q3 of this financial, Q1 calendar 19 and Q2 calendar 19, the full ramp-up from Murambi. That is all we wanted to say on the presentation.

I think we've been through all of the questions that have come through the system. If anybody wants to type in one more, I'll give it 30 seconds or so. I think we've answered all the questions from shareholders. Many thanks, again, for your attendance today. We hope to update you again in around six months' time, on the back of the fund results. Thank you.

CO

Thank you for joining today's call. You may now disconnect.