

ASX Announcement : 16 August 2012

## Nolans Project Base Case Valuation and Outlook

A R A F U R A  
R E S O U R C E S L I M I T E DArafura Resources Limited  
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Open Briefing interview with Interim CEO Chris Tonkin

*Arafura Resources Limited (ASX: ARU) is an emerging rare earths company and aims to be a long term supplier of rare earth oxides (REO) through the development of its 100% owned Nolans Project which includes the Nolans Bore Mine in the Northern Territory and the Whyalla Rare Earths Complex in South Australia*

*Market Capitalisation - \$71 million*

### In this Open Briefing<sup>®</sup>, Chris discusses:

- Nolans Rare Earths Project base case valuation
- Outlook and strategy for securing project funding
- Milestones and corporate objectives

### Record of interview:

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Arafura Resources Limited (ASX: ARU) recently released a detailed update on the Nolans Rare Earths Project which projected a base case net present value of A\$4.3 billion, an internal rate of return of 30% and capital payback after four years of operation. What are the key assumptions behind this valuation? What is your level of confidence in the valuation given you have yet to complete a feasibility study?

#### CEO Chris Tonkin

We have a draft feasibility study that is fairly advanced. We've put together a significant amount of information over the last few years which has formed the basis of the feasibility study. Our test work began in 2005 which places us well ahead of nearly all other rare earth companies looking to enter the market in the near term. This test work has been extremely valuable in helping define the Project base case, which we hadn't done previously, and this has created a lot of confidence and newfound focus within the Company.

Our base case valuation uses very conservative assumptions. It assumes a rare earths price for the Nolans mix of about A\$60 per kilogram and operating costs of just over A\$20 per kilogram. The valuation is most sensitive to rare earths prices and secondly to the exchange rate. It's relatively insensitive to everything else, even changes in operating and capital costs. Much of our work has been backed up by third party consultants, which gives us further confidence.

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In September, Arafura shareholders will vote on a previously announced capital injection of approximately A\$9.9 million from ECE Nolans Investment Company (ECE), the Company's long-term and largest shareholder at 24.86% (post completion). You've indicated the funds

will be used to further progress the Nolans Project feasibility study. Will you be adequately funded to complete the study?

**CEO Chris Tonkin**

ECE is a strong supporter of Arafura and is very bullish about our prospects. ECE's investment of A\$9.9 million to support the Project is not enough to complete the feasibility study, as we'll need to raise between A\$50 million and A\$80 million. Some of the required work is costly and includes spending on an integrated pilot plant, which will validate the process flowsheet and the major recycle circuits, as well as on detailed engineering studies. We're aiming to get to an investment decision by the middle of next year.

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The core capital cost for the Nolans Project Base Case is estimated at A\$1,395 million and company-operated ancillary plants at an additional A\$517 million. What is your strategy in relation to securing funding for the Project? What funding options are available?

**CEO Chris Tonkin**

We've appointed advisors to assist us with short-term funding requirements and that may flow into the process of securing long-term funding which, given our time frame, needs to be started early next year. Currently we are looking at raising conventional debt and equity for the major funding but we'll also consider other sources including export credit finance and different types of equity and debt.

While it's a tough market, we're reasonably confident we'll get the funding. Our confidence reflects the various approaches we've had in the last six months, which we haven't progressed because we wanted to complete the project update. We think the update demonstrates substantial value that has yet to be appreciated by the market.

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Over the June quarter 2012, the Nolans Bore JORC resource was upgraded to 47 million tonnes @ 2.6% rare earth oxide (REO), 11% phosphorus pentoxide (P<sub>2</sub>O<sub>5</sub>), and 0.41 lb/t uranium oxide (U<sub>3</sub>O<sub>8</sub>). Is there a plan to conduct further testing of the Nolans Bore resource as the Project advances?

**CEO Chris Tonkin**

Our knowledge of the Nolans Bore resource, including its metallurgical performance, is at an advanced stage. It has been subject to 90 kilometres of drilling, so we consider the resource risk is very low. On Measured and Indicated Resources alone, there is enough to sustain the Project for 20 years. If Inferred Resources are included, it adds another 10 years to production, and the resource is still open at depths below 215 metres. A possible consequence of the work we've done to advance the feasibility study and to produce a base case project update, is that we may be able to pass the economic test required to convert our Mineral Resources into Ore Reserves. We're working on that, and believe it can add substantial value to the Project.

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You've indicated that the Nolans Project's Neodymium Oxide (Nd<sub>2</sub>O<sub>3</sub>) content of 20.58% of the total REO composition is the highest of any rare earths resource currently being advanced for development in the world. What is the significance of this for future project value?

**CEO Chris Tonkin**

Neodymium is the high value rare earth in Arafura's REO mix, and is the main component of our Didymium Oxide product. It's used for magnets which go into a lot of green energy and similar products we expect will be in very high demand in the future. There is more Neodymium Oxide at Nolans than any project likely to come close to production in the next 10 years. We think the neodymium content underpins the value of the Project.

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You expect the global market for rare earths to have a shortfall over the medium to long term in certain REO products, particularly Didymium (Nd/Pr) Oxide, which is represented in the Nolans product mix. What assumptions underlie this expectation and to what extent do the expected project economics depend on this demand scenario?

**CEO Chris Tonkin**

Didymium Oxide is the highest value product from the Nolans Project, and the demand for this product is on the rise. Also, Didymium Oxide doesn't face as many competitive supply issues as other more common REO products, such as Cerium Oxide.

Every rare earths project has a different mix, and we've built our demand forecasts for each individual rare earth in our mix. Our price forecasts take account of an expected large supply of Cerium Oxide and Lanthanum Oxide. At the same time we expect increasing demand for Didymium Oxide. We considered each of the other rare earths in our mix separately, used leading independent expert reports as well as our own analysis, and have held comprehensive discussions with market participants, including with potential customers that have provided feedback on our REO product samples.

It's difficult to forecast what's going to happen in China but we have a major Chinese shareholder who is very bullish about our project. We don't believe Chinese prices will return to where they were. Prices peaked a year ago and overshot where they should have been. We believe current prices are at a more "natural" and sustainable level.

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Arafura has a letter of intent (LOI) with Germany's ThyssenKrupp and a memorandum of understanding (MOU) with a major Korean company, each for 3,000 tonnes of REO products and also relating to cooperation on Project development and/or financing. With the feasibility study yet to be completed, are you pursuing further supply or partnership agreements?

**CEO Chris Tonkin**

We've focused on getting our feasibility study to an advanced stage and completing the project update. Discussions are ongoing with ThyssenKrupp, our Korean partner and a number of other potential off takers. We've scheduled a visit to Europe in early September to step up our engagement with other parties. Similar visits are planned into other parts of the world soon after.

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What are your key corporate objectives over the next 12 months?

**CEO Chris Tonkin**

The main objective is to get to an investment decision by the middle of next year. Once that decision is made it will then trigger the raising of finance and the development of the Project. We expect that to take a reasonable amount of time but we're confident we can do it. That objective can't be realised unless we have a feasibility study that's close to final feasibility. It may take further time to get to final feasibility study stage, as that depends on finishing some of the detailed engineering work and getting final environmental approvals. But by that time we'd expect to be right at the start of the development phase.

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Thank you Chris.

To listen to an interview with Chris Tonkin, CEO of Arafura Resources, please click on [www.openbriefing.com/OB/770.aspx](http://www.openbriefing.com/OB/770.aspx)

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For more information about Arafura, visit [www.arafuraresources.com.au](http://www.arafuraresources.com.au) or call Chris Tonkin on (+61 8) 6210 7666.

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#### **COMPETENT PERSONS STATEMENT**

The information in this report relating to Exploration Results and geological interpretation was compiled by Mr Kelvin Hussey who is a Member of the Australian Institute of Geoscientists. Mr Hussey is a full time employee of Arafura Resources Limited and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code). Mr Hussey consents to the inclusion of this information in the form and context in which it appears.

The information in this report relating to Mineral Resources was compiled by Mr John Tyrrell who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Tyrrell is a full time employee of AMC Consultants Pty Ltd and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code). Mr Tyrrell consents to the inclusion of this information in the form and context in which it appears.