

Arafura Development Report reinforces robust project economics, rare earth production scheduled for 2019

Arafura Resources ('Arafura', ASX: ARU) will start production in 2019 with a 20,000 tons/year target featuring excellent project economics according to the Company's 'Development Report for the Nolans Project in the Northern Territory – the



Nolans Development Report (NDR). The Report provides an updated picture for the project while serving as the preview to the Definitive Feasibility Study scheduled for completion in mid- to late-2015. The Project's Definitive Feasibility Study (DFS) will:

1. incorporate the results of the ongoing China-based optimization program
2. increase opportunities for the Company, including confirmation of provisional product sales agreements
3. Proceed with regulatory permitting for the Nolans Site, including the Project's water supply
4. Secure an offshore site within an established chemical precinct for the Separation Plant

The NDR reflects Arafura's strategy of de-risking the Nolans Project by focusing on the production of high demand heavy rare earth metals (HREE) such as neodymium and praseodymium (Nd, Pr) and a commitment to lowering costs wherever possible. Arafura has identified three main factors as responsible for the cost cutting measures in response to pressure from falling

commodity prices and Australian infrastructure costs, which have increased substantially in the past few years. One of the most notable examples of this approach was Arafura's decision to shift the proposed processing plant that was to be built in Wyhalla (at first chosen because the jurisdiction's welcoming attitude and recognition from the state government of South Australia) to an area closer to where the Nolans mine will be built.

The relocation of the processing plant alone has allowed Arafura to save some AUD\$ 400 million while also leaving sufficient capital to continue along the path to production. But the overall savings plan envisaged measures to achieve savings of over AUD\$ 1 billion, which has prompted the decision to locate the separation plant to an entirely different region within easy reach of hydrochloric acid supplies, which do away with the need to a chloralkali plant. The NDR assumes that the separation plant would be based at a location in the Gulf Coast region of the USA. Finally, the third major prong of Arafura's de-risking plan has been to work closely with experienced partners such as East China Mineral Exploration and Development Bureau (ECE). ECE holds a strategic equity holding of 24.86% in Arafura, enabling Arafura to avoid having to dilute the share price while continuing to work on its own innovative rare earth extraction process. The cost cutting measures have been of vital significance to the Nolans Project because, without them the Nolans Project was threatened. Arafura has survived and thrived thanks to a decision to become more efficient.

The Nolans Bore probable ore reserves total 24 million tons grading 2.8% REO (672,000 tons of contained REO), along with 2.97 million tons of phosphorus oxide and 4,900 tons of uranium oxide. Arafura's excellent economics stem from the composition of its resource, which features 25-26% magnet feed materials, clearly leaving Arafura the room and capacity to become a world class magnet producer. According to Arafura,

these reserves can be mined using open-pit methods that help improve on overall costs and have an estimated lifespan of 22 years, using a maximum beneficiation turnout of 1.1 million tons per annum. Further drilling will be required for confirmation but Arafura's 95% resource-to-reserve conversion rate marks a significant achievement, with Nolans Bore as one of the world's only rare earths projects that has established an ore reserve.

The Chinese have a market share of 90% for rare earths. State-controlled company Baotou Steel Rare-Earth intends to store up to 100,000 tons of metals in special warehouses. This practice should start to raise the price of rare earths. Just about all rare earths, with the likely exceptions of cerium and lanthanum, are being hoarded. China can afford to do this because it has no competition at all for the time being – unlike the cases of cerium and lanthanum. China wants to secure long-term supplies for its own industries and heavy rare earths are likely to be really rare in the next few years, which should force prices to rise – sharply. Chinese companies could then be supplied by the state with cheap supplies, while foreign companies would most likely have to pay horrendous prices. China is also consolidating suppliers and reducing excess capacity to match demand, allowing some measure of price controls.

Arafura launches plan to address rising costs and

falling rare earth prices



Arafura Resources ('Arafura', ASX: ARU), one of Australia's fastest-growing rare earths developers, has announced that it has formally terminated – effective June 24, 2013 – the 'Contract for Sale and Purchase

of Land in Whyalla', signaling the formal implementation of an ambitious cost saving strategy to improve the economics of the Nolans Rare Earths Project. This is a very important development that will enable Arafura to realize material capital (and operating) cost savings to the tune of AUD\$ 400 million by re-locating the intermediate chemical (hydrometallurgical) processing plant from Whyalla to the Northern Territory, closer to Nolans Bore. Arafura is also evaluating prospects to locate its separation plant to an established chemical precinct outside Australia, within well established supporting infrastructure. The cost savings will allow Arafura to continue on its course to production of REE's featuring significant quantities of heavy rare earths.

The move from Whyalla is the first step toward reaching the ultimate goal of cutting up to a billion dollars off the cost of the Project. The second major step will be determined by the location of the separation plant, which will be moved to a location where there is easy access to hydrochloric acid, which means that Arafura will not have to build a chlor-alkali plant, which will by itself take away a further AUD\$ 300 million or so off the project's cost. Arafura, meanwhile, is continuing to work closely with its Chinese partner East China Mineral Exploration and Development Bureau (ECE) toward achieving project optimization thanks to a careful review of capital and operating costs in addition to the billion dollars savings plan described above. ECE has a strategic equity

holding of 24.86% in Arafura, enabling Arafura to avoid having to dilute the share price while continuing to work on its own innovative rare earth extraction process.

Arafura has identified three main factors as responsible for the cost cutting measures. The overall motivation has resulted from an industry-wide pressure on costs, which in Arafura's and others' case, has unmasked investment budgets as being overly ambitious. Falling commodity prices have burdened Arafura prompting the Company to capture losses by moving the processing plant closer to the mine. Finally, Australian infrastructure costs have increased substantially in the past few years – especially energy and construction – making the Wyhalla plant prohibitively expensive. Arafura had chosen Whyalla, originally, because of the jurisdiction's welcoming attitude and recognition from the state government of South Australia. Nevertheless, the combination of rising costs and lower rare earth prices prompted Arafura to take action to ensure long term success, revising the Nolans project's configuration; namely, addressing the rapidly growing risks owing to rising transportation and logistics costs.

Chris Tonkin, Arafura Resources's CEO, first announced the cost cutting plan at the Technology Metals Summit (#TMS2013) in Toronto last April 21. Arafura said that the cost pressure had actually threatened the viability of the Nolans mine while the savings would allow it to avoid having to raise or borrow funds to continue expanding the Nolans project. This is a significant achievement particularly in view of the fact that. Arafura has taken on the rising costs by focusing on becoming more efficient.

The Nolans Bore probable ore reserves total 24 million tons grading 2.8% REO (672,000 tons of contained REO), along with 2.97 million tons of phosphorus oxide and 4,900 tons of uranium oxide. According to Arafura, these reserves can be mined using open-pit methods that help improve on overall costs and have an estimated lifespan of 22 years, using a

maximum beneficiation turnout of 1.1 million tons per annum. Additional positives can be found in the fact that 21 million tons of the Nolans Bore inferred resources can be converted to ore reserves. Further drilling will be required for confirmation but Arafura's 95% resource-to-reserve conversion rate marks a significant achievement, with Nolans Bore as one of the world's only rare earths projects that has established an ore reserve.