

# Arafura Resources Limited

Australia China Minerals Investment Summit  
21-23 May 2013, Darwin

<b>Eu</b> Europium	<b>Lu</b> Lutetium	<b>Sm</b> Samarium	<b>Gd</b> Gadolinium	<b>Ho</b> Holmium	<b>Ce</b> Cerium		<b>Tb</b> Terbium
<b>Er</b> Erbium	<b>Dy</b> Dysprosium		<b>Ce</b> Cerium		<b>Nd</b> Neodymium	<b>Y</b> Yttrium	
<b>Yb</b> Ytterbium	<b>La</b> Lanthanum		<b>Pr</b> Praseodymium	<b>Tm</b> Thulium			

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Mr Brescianini is a full-time employee of Arafura Resources.



# Company Snapshot

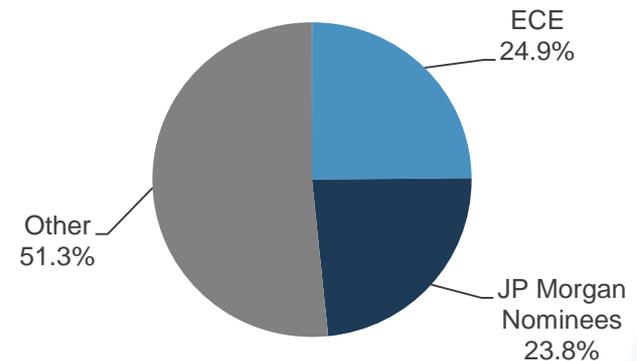
## Arafura Resources

- ▲ Australian company developing a major Rare Earths project – the Nolans Project
- ▲ World class resource located in the Northern Territory, Australia

<b>ASX Code</b>	ARU
<b>Shares on offer</b>	441.3 million
<b>Options</b>	11.5 million
<b>Market Cap @ 11c</b>	A\$48.5 million
<b>1-year range</b>	10.0 – 29.5 cents
<b>Cash at 31/03/13</b>	A\$36.3 million
<b>Debt</b>	nil



## Major Shareholders



# Exploration Portfolio

## Mt Porter

- Gold – Ark Mines farm-in

## Aileron-Reynolds

- REEs
- Iron – Ferrowest farm-in

## NOLANS

RARE EARTHS  
PHOSPHATE  
URANIUM

## Kurinelli

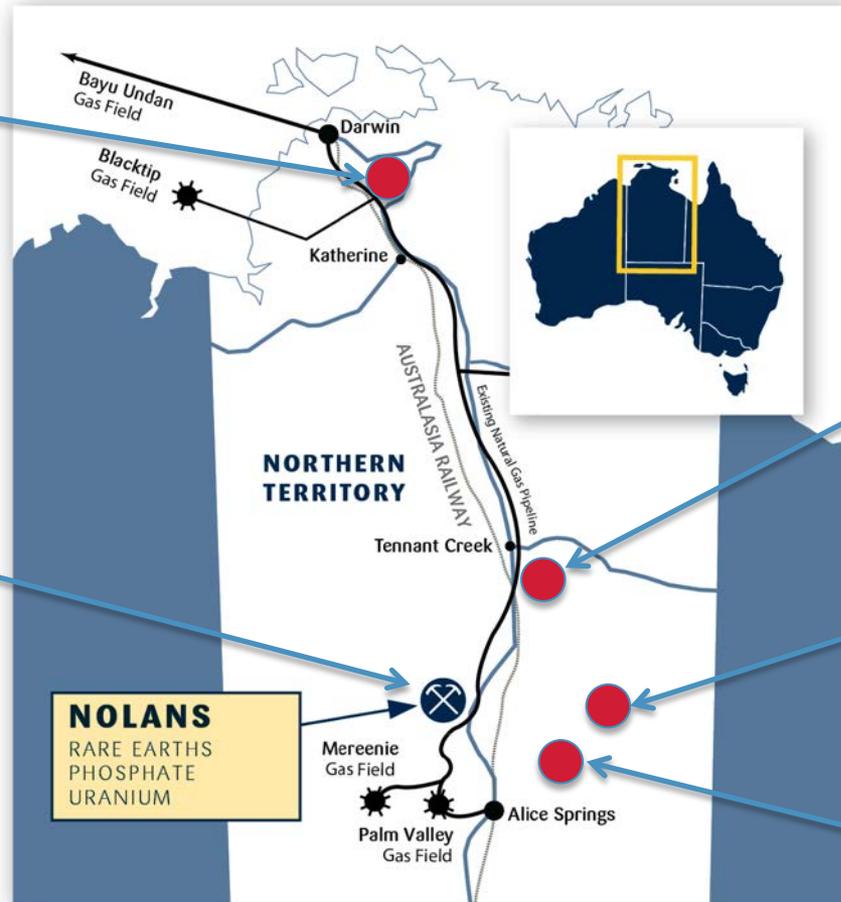
- Gold

## Jervois

- Base & Precious Metals – Rox Resources farm-in
- Iron-Vanadium

## Hammer Hill

- Base Metals



# Nolans Project Highlights

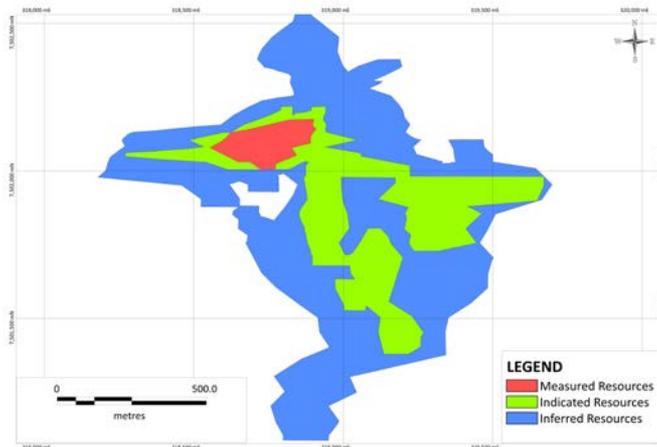
- ▲ Nolans Project – **world scale and well advanced**
- ▲ Can supply **10% of global rare earths products** this decade
- ▲ **JORC Ore Reserve** established
- ▲ **Five REO products** separated to 99% purity
- ▲ **Project Base Case announced** in August 2012
- ▲ **Project Initiatives underway** to significantly **reduce capital costs and optimise** project economics
- ▲ **Chinese expertise leveraged** through strategic partnership
- ▲ Committed **Board and Management** team



# Nolans Bore Mineral Resources (June 2012)

Resources	Tonnes (million)	Rare Earths % REO	Tonnes REO	Phosphate % P <sub>2</sub> O <sub>5</sub>	Uranium % U <sub>3</sub> O <sub>8</sub>
Measured	4.3	3.3	144,000	13	0.03
Indicated	21	2.6	563,000	12	0.02
Inferred	22	2.4	511,000	10	0.02
<b>TOTAL</b>	<b>47</b>	<b>2.6</b>	<b>1,217,000</b>	<b>11</b>	<b>0.02</b>

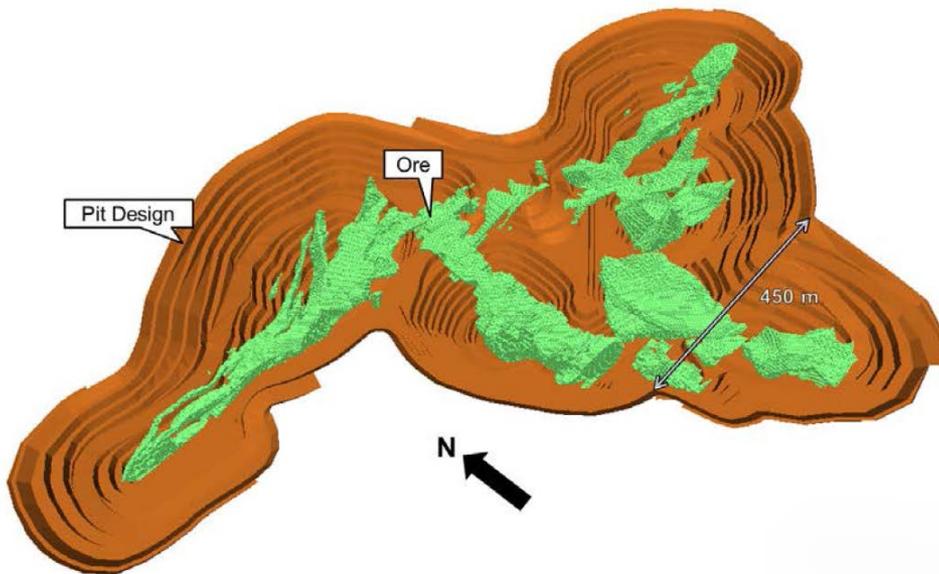
1% REO cut-off grade



- ▲ **Minimal resource risk** – approximately 90 km drilling
- ▲ Mineral resource **remains open at depths** below 220 m
- ▲ Amenable to low cost open cut mining and milling
- ▲ Standard beneficiation techniques

# Nolans Bore Ore Reserves (December 2012)

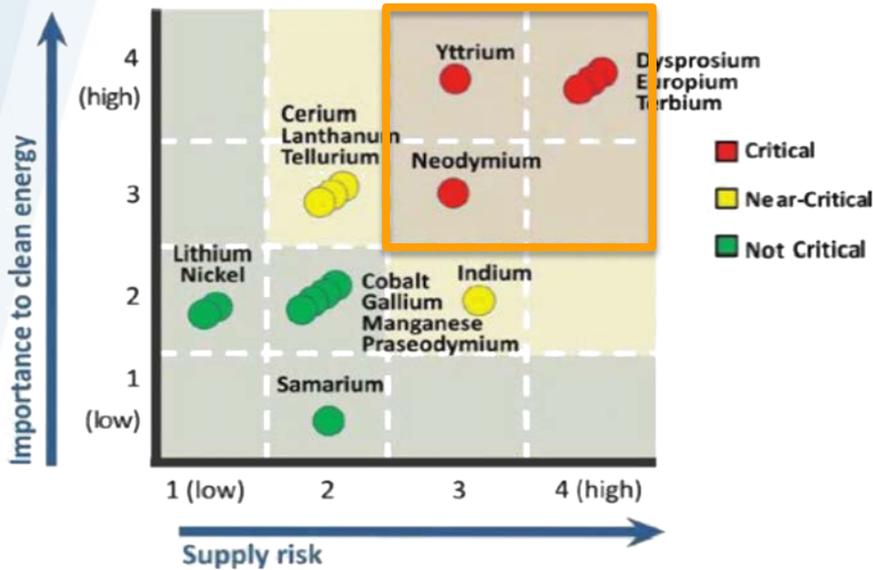
Reserves	Tonnes (million)	Rare Earths % REO	Tonnes REO	Phosphate % P <sub>2</sub> O <sub>5</sub>	Uranium % U <sub>3</sub> O <sub>8</sub>
Probable	24	2.8	672,000	12	0.02



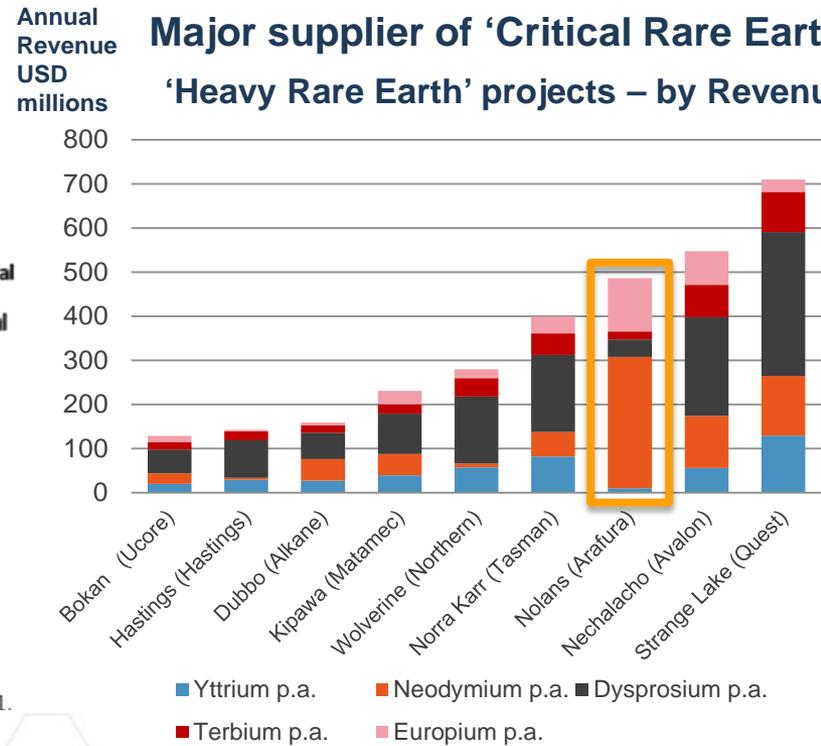
- ▲ 95% of Measured and Indicated Resources converted to Ore Reserves
- ▲ Independently prepared Ore Reserve for Nolans Bore to support a **22 year mine life**
- ▲ **Inferred Resources of 21 Mt** available for potential future conversion to Ore Reserves

# A major supplier of 'Critical Rare Earths'

Short-Term (0–5 years) Criticality Matrix



Major supplier of 'Critical Rare Earths'  
'Heavy Rare Earth' projects – by Revenue\*



Source: US Department of Energy – Critical Materials Strategy, December 2011.

\*Rare earth prices as at 28/3/13

# Market Conditions Impact Project Base Case

## Nolans Project Base Case:

- ▲ Established in August 2012
- ▲ Project economics over 20 years
- ▲ NPV of A\$4.3 billion (10% discount rate)
- ▲ IRR of 30% (after tax & capital payback)
- ▲ Capital payback within 4yrs of operation
- ▲ **Capital cost A\$1.9 billion**



## Since Base Case established:

- ▲ Rare earth prices have fallen further
- ▲ Upward pressures on costs
- ▲ Depressed financial markets impact funding options
- ▲ **Capital costs for the project under current market conditions are too high**

**Project Initiatives underway to materially reduce costs and enhance economics of the Nolans Project**

# Cost Reductions of up to A\$1 billion targeted

## Arafura is actively pursuing initiatives to:

- ▲ Identify and apply process flow sheet improvements and design efficiencies
- ▲ Improve and optimise the Project's configuration and logistics
- ▲ Substantially reduce capital and operating costs

- **Immediate savings can be achieved** by relocating Intermediate Chemical Processing from Whyalla to the Northern Territory, close to the Nolans Bore Mine site
- **Material savings from relocation – \$160 million in capital costs and \$1.60/kg of REO in operating costs**; additional transport, logistics and environmental benefits
- **Further savings and cost reductions** expected from **Trade-Off Study initiatives** and **Optimisation Program** with Chinese experts
- **Arafura is targeting total capital cost reductions of between A\$500 million and A\$1 billion**

# ECE and Optimisation Program

- ▲ ECE is a **strategic and important partner for Arafura**
- ▲ Long-term and supportive relationship with Arafura since 2009. Equity increased to 24.86% via SPP (A\$10 million) in 2012
- ▲ **Project Review and Optimisation Program underway with Chinese rare earth experts** (via ECE introductions) to identify synergies and further optimisation of the Project
- ▲ **Importance to and advantage for Arafura:**
  - › Access to Chinese rare earth industrial experience and expertise
  - › Access to Chinese technology and resources
  - › Strategic, technical and financial support

# Funding Requirements Significantly Reduced



- ▲ **Prospective elimination** of previously announced funding (A\$30 million) required to complete Feasibility Study
- ▲ Immediate savings identified through project reconfiguration
- ▲ Total capital **cost reduction target of up to A\$1 billion**
- ▲ With targeted initiatives in place, Arafura is confident it can advance the Nolans Project **towards financing and commercialisation**

# Experienced Board and Management



**Ian Kowalick – Non-Executive Chairman**  
Appointed 1 February 2012. Ian has worked in technical and project consulting, economic and business analysis for resource, banking and investment companies. Previously held the most senior management position in the South Australian public sector.



**Gavin Lockyer – Company Secretary & CFO**  
Over 20 years' international experience in finance and mining. Held positions in senior investment banking, finance, treasury, derivatives and accounting.



**Chris Tonkin – Managing Director**  
Over 25 years' experience as senior business executive. Proven track record in structuring and arranging complex financings for companies and projects in Australia and internationally across all major industry sectors.



**Richard Brescianini – General Manager, Exploration & Development**  
Over 25 years' public and private experience in the minerals industry, including BHP Minerals and the NT Government's Geological Survey.



**Shasha Lu – Non-Executive Director**  
Based in Nanjing, China – responsible for business development opportunities in China. Former Executive Director and CEO of Hong Kong East China Non-Ferrous Metal Resources Co. Ltd (part of ECE).



**Neil Graham – General Manager, Operations & Technology**  
Over 25 years' international experience in the chemical industry encompassing design, construction and commissioning of installations. Chartered engineer, most recently worked with Orica.



**Terry Grose – Non-Executive Director**  
30 years' experience as senior executive, consultant and director. Joined Wesfarmers Limited in 1985 as Business Development Manager and later moved to Hong Kong as Executive Director of a computer software company.



**John Ganser – General Manager, Projects**  
Over 30 years' experience in minerals and metals industry, including Rio Tinto, BHP Billiton, Iluka Resources, Hatch, SKM GHD and Calibre Projects.

# Summary

- ▲ Nolans Rare Earths Project – **world scale and well advanced**
- ▲ Well positioned to supply **10% of global rare earths products** this decade
- ▲ **Strong representation of ‘Critical Rare Earths’** in product mix
- ▲ Trade-Off Study completed – **project initiatives underway** to significantly **reduce capital costs and optimise** project economics
- ▲ **Optimisation Program ongoing with Chinese rare earth experts** – additional material efficiencies and savings expected
- ▲ **Expected reduction in short-term funding** requirements and long-term funding risk
- ▲ Experienced and committed **Board and Management** team

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<b>Eu</b> Europium	<b>Lu</b> Lutetium	<b>Sm</b> Samarium	<b>Gd</b> Gadolinium	<b>Ho</b> Holmium	<b>Ce</b> Cerium		<b>Tb</b> Terbium
<b>Er</b> Erbium	<b>Dy</b> Dysprosium					<b>Y</b> Yttrium	
<b>Yb</b> Ytterbium	<b>La</b> Lanthanum		<b>Pr</b> Praseodymium	<b>Nd</b> Neodymium	<b>Tm</b> Thulium		