

For personal use only

Asia Mining Conference

Presented by:
Gavin Lockyer CFO/Company Secretary
Singapore 21st March 2010



A R A F U R A
R E S O U R C E S L I M I T E D

69	70	71
Er	Tm	Yb
Erbium 167.259	Thulium 168.9342	Ytterbium 173.04
68	69	70
Dy	Ho	Er
Dysprosium 162.5	Holmium 164.9303	Erbium 167.259
67	68	69
Tb	Dy	Ho
Terbium 158.9253	Dysprosium 162.5	Holmium 164.9303
66	67	68
Gd	Tb	Dy
Gadolinium 157.25	Terbium 158.9253	Dysprosium 162.5
65	66	67
Eu	Gd	Tb
Eurpium 151.964	Gadolinium 157.25	Terbium 158.9253
64	65	66
Sm	Eu	Gd
Samarium 150.36	Eurpium 151.964	Gadolinium 157.25
63	64	65
Pm	Sm	Eu
Promethium 144.9127	Samarium 150.36	Eurpium 151.964
62	63	64
Nd	Pm	Sm
Niodymium 144.24	Promethium 144.9127	Samarium 150.36
61	62	63
Pr	Nd	Pm
Praseodymium 140.9076	Niodymium 144.24	Promethium 144.9127
60	61	62
Ce	Pr	Nd
Cerium 140.116	Praseodymium 140.9076	Niodymium 144.24
59	60	61
La	Ce	Pr
Lanthanum 138.90547	Cerium 140.116	Praseodymium 140.9076

Disclaimer

Important Notice

This presentation contains certain statements which may constitute “forward-looking statements.” Such statements are only predictions and are subject to inherent risks and uncertainties which could cause actual values, results, performance achievements to differ materially from those expressed, implied or projected in any forward-looking statements.

No representation or warranty, express or implied is made by Arafura Resources Limited that the material contained in this presentation will be achieved or prove to be correct. Except for statutory liability which cannot be excluded, each of Arafura Resources’ directors, its officers, employees and advisers expressly disclaims any responsibility for the accuracy or completeness of the material contained in this presentation and excludes all liability whatsoever (including in negligence) for any loss or damage which may be suffered by any person as a consequence of any information in this presentation or any error or omission there from.

Arafura Resources accepts no responsibility to update any person regarding any inaccuracy, omission or change in information in this presentation or any other information made available to a person nor any obligation to furnish the person with any further information. This is not for USA investor distribution.

The information in this release that relates to exploration results and geological interpretation has been compiled by Mr Richard Brescianini BSc (Hons), and the information in this release that relates to metallurgical results and interpretation has been compiled by Mr Steve Mackowski BAppSc, both full-time employees of Arafura Resources. Mr Brescianini is a Member of the Australian Institute of Geoscientists and he has sufficient experience with the style of mineralisation being reported 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)” for reporting the exploration results. Mr Brescianini consents to the inclusion in this report of the contained technical information in the form and context in which it appears.

Mr Mackowski is a Fellow of the Australian Institute of Mining and Metallurgy and he has sufficient experience with the style of mineralisation being reported 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)” for reporting these metallurgical results. Mr Mackowski consents to the inclusion in this report of the contained technical information in the form and context in which it appears.

Arafura Resources Limited

For personal use only

Arafura is an Australian-based mineral exploration and development company which listed on the Australian Securities Exchange in 2003. **(ASX:ARU)**

Our Vision is to be the pre-eminent supplier of rare earths to the world and we will do this by:

- developing the Nolans Rare Earths-Phosphate-Uranium Project; and
- pursuing long-term strategic growth opportunities in rare earths through exploration success and strategic partnerships.

We will relentlessly pursue growth in shareholder value in a sustainable way.



Corporate Structure (ASX: ARU)

For personal use only

As at 19 March 2010

Capital

287.4m shares; 15.5m Board/Employee options

Market capitalisation (ASX:ARU closing price @ 19 March 2010)

@ A\$0.61 = ~A\$175 million

Cash (@ 19 March 2010)

A\$25.2 million

Top shareholders

ANZ Nominees ¹	30.2%
ECE ²	22.4%
Citicorp Nominees	3.3%
Board & Management	3.0%

1. Substantial German-based shareholding amongst many shareholders
2. East China Mineral Exploration & Development Bureau

Capital raising via Renounceable Rights Issue (1 for 10) in progress (ASX: ARUR)



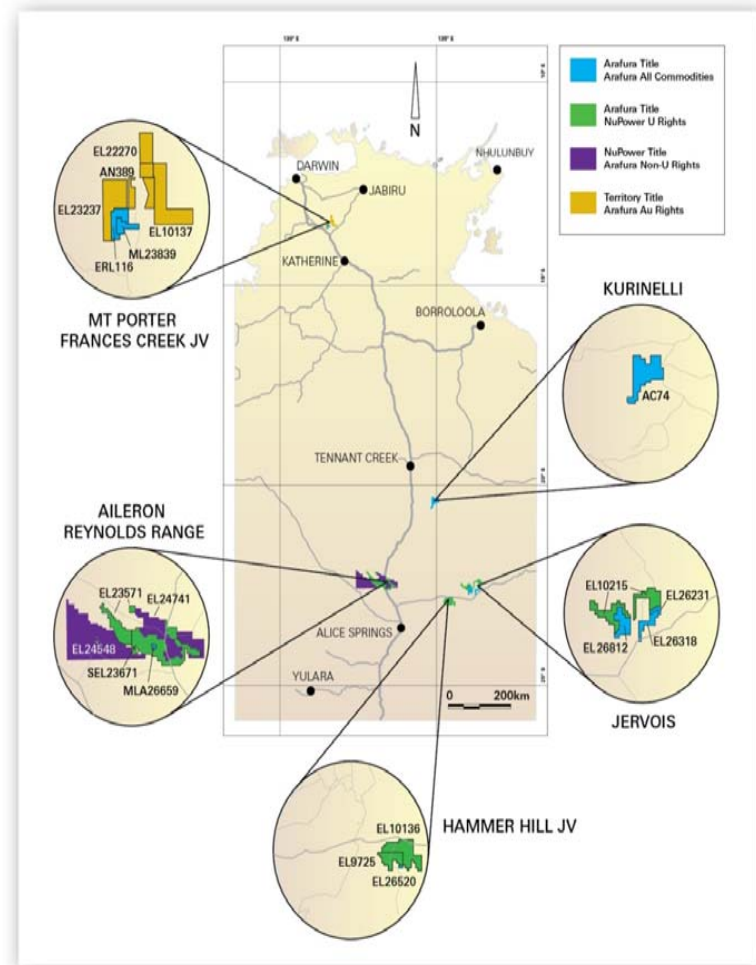
Business Plan – existing landholdings

For personal use only



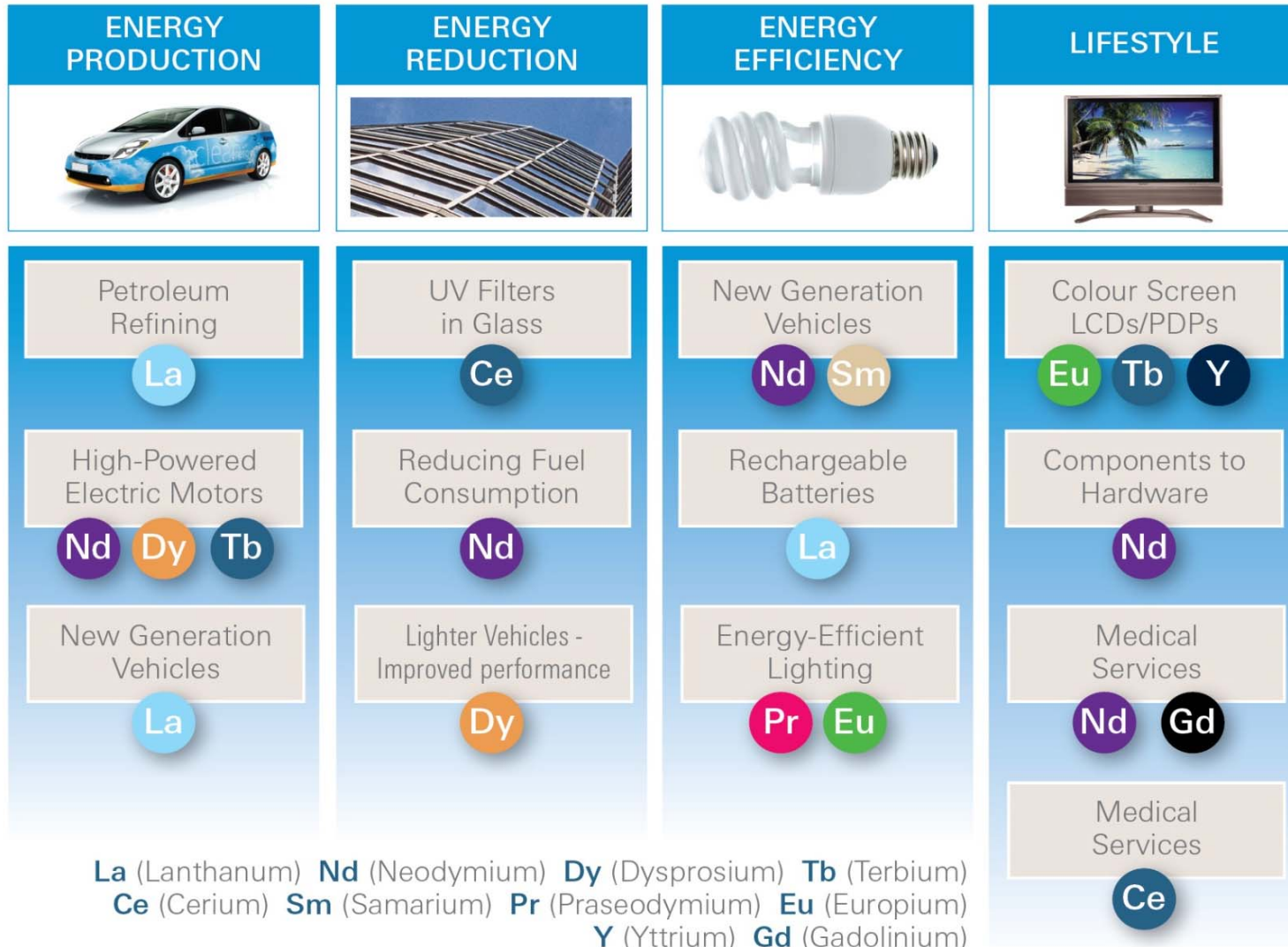
To create shareholder value by:

- focusing on the Nolans Rare Earths-Phosphate-Uranium Project.
- Identifying other rare earth projects
- JV or explore current projects in gold, base metals and iron-vanadium (ongoing JV discussions)



Rare earths – Demand driven by governments, lifestyle and energy efficient technology

For personal use only



La (Lanthanum) **Nd** (Neodymium) **Dy** (Dysprosium) **Tb** (Terbium)
Ce (Cerium) **Sm** (Samarium) **Pr** (Praseodymium) **Eu** (Europium)
Y (Yttrium) **Gd** (Gadolinium)

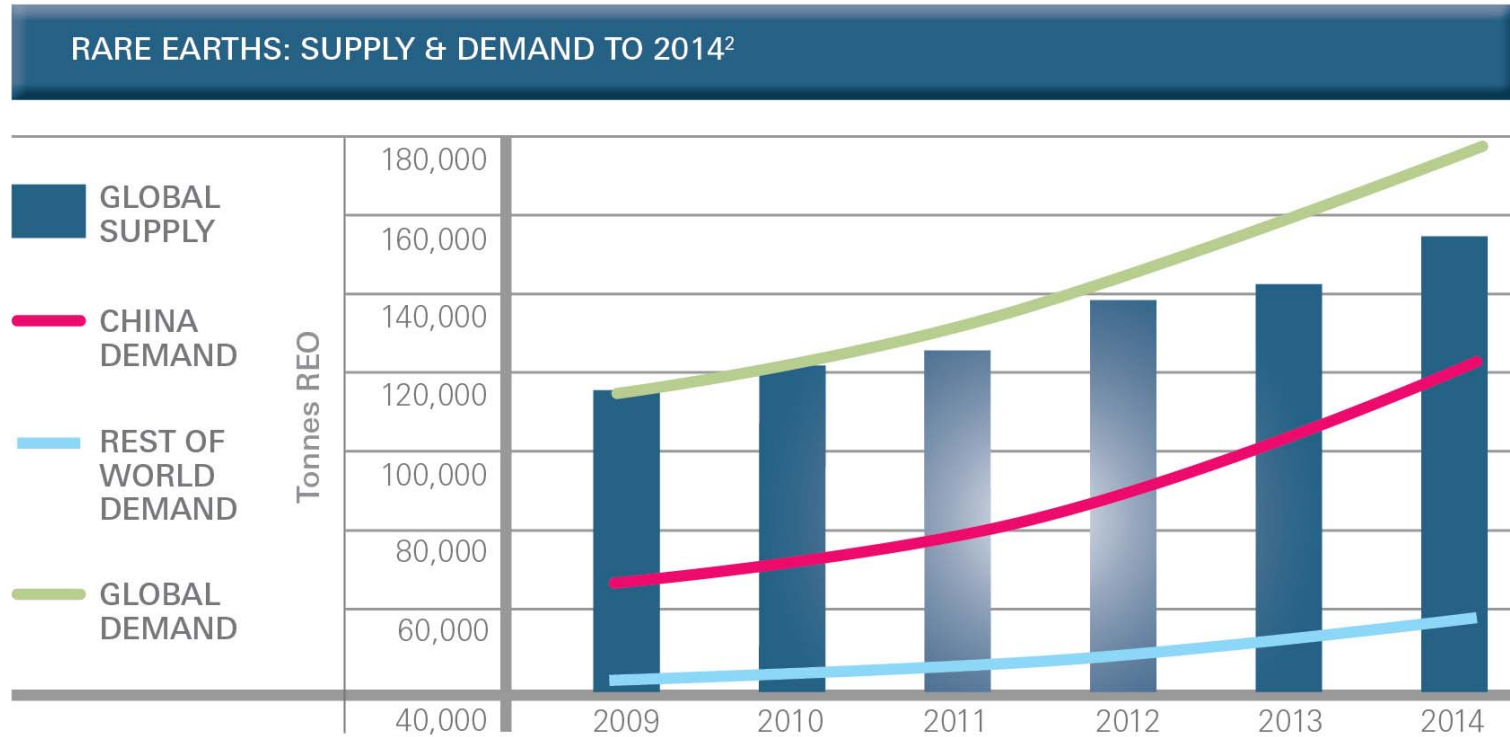
Rare earths - global supply restricted

- China currently supplies 95% of rare earths
- China restricting supply through industry consolidation, quotas and tariffs.
- Each RE deposit is geologically unique and requires its own metallurgy to be developed. (ie: long lead time to production and return on investment)
- New significant resources with proven technology are limited.
- Arafura is well positioned to meet globally growing demand and importantly, has unfettered supply to anywhere in the world.

For personal use only

Rare earths: demand growth, constrained supply

For personal use only

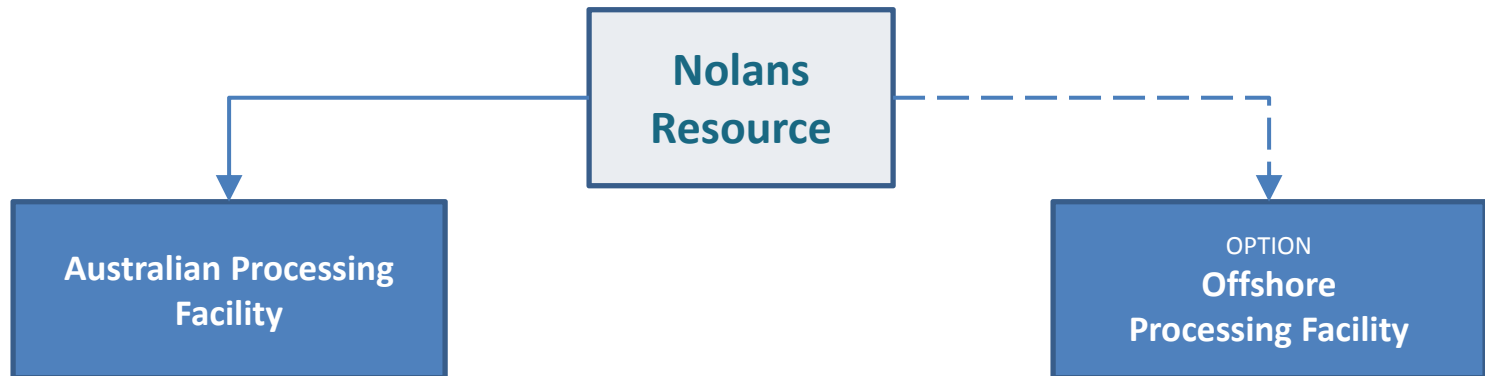


1,2: BCC Research, June 2009 Market Research Report. Rare Earths: Worldwide Markets, Applications, Technologies

The Nolans resource is well positioned to become a substantial supply source to the world market far into the future

Arafura's rare earths business structure

- Nolans' current resource is sufficient to sustain production of 20,000/t p.a of REO for more than 20 years.
- With further drill programmes, Arafura is confident Nolans has geological potential to expand to support increased production beyond 20,000/t p.a.



(if value creating for shareholders)

Annual production	
REO	20,000t
P ₂ O ₅	80,000t
CaCl ₂	400kt
U ₃ O ₈	150t

Nolans Location – Central Australia

For personal use only



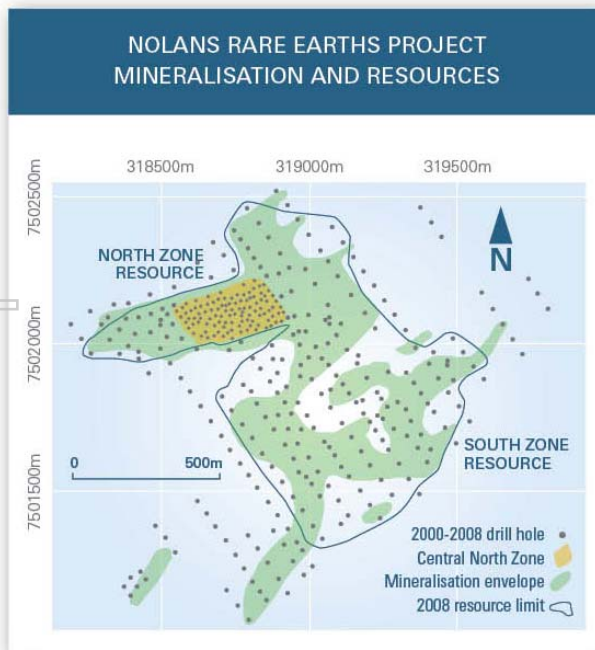
- Politically stable
- Resources based economy
- Strong, unambiguous regulatory controls – environment and radiation
- Remote but not isolated from modern infrastructure
 - 5 km to gas line
 - 10 km to sealed Stuart Highway
 - 60 km to Adelaide to Darwin rail line
 - 135 km north of Alice Springs

Nolans is a globally significant JORC resource

Total resources for Nolans Project

RESOURCES	TONNES ¹ (million)	RARE EARTHS REO %	PHOSPHATE P ₂ O ₅ %	URANIUM U ₃ O ₈ lb/t
Measured	5.1	3.2	13.5	0.57
Indicated	12.3	2.8	13.4	0.43
Inferred	12.8	2.6	12.2	0.40
TOTAL	30.3	2.8	12.9	0.44
CONTAINED METAL		848,000 t	3.9 Mt	13.3 Mlb

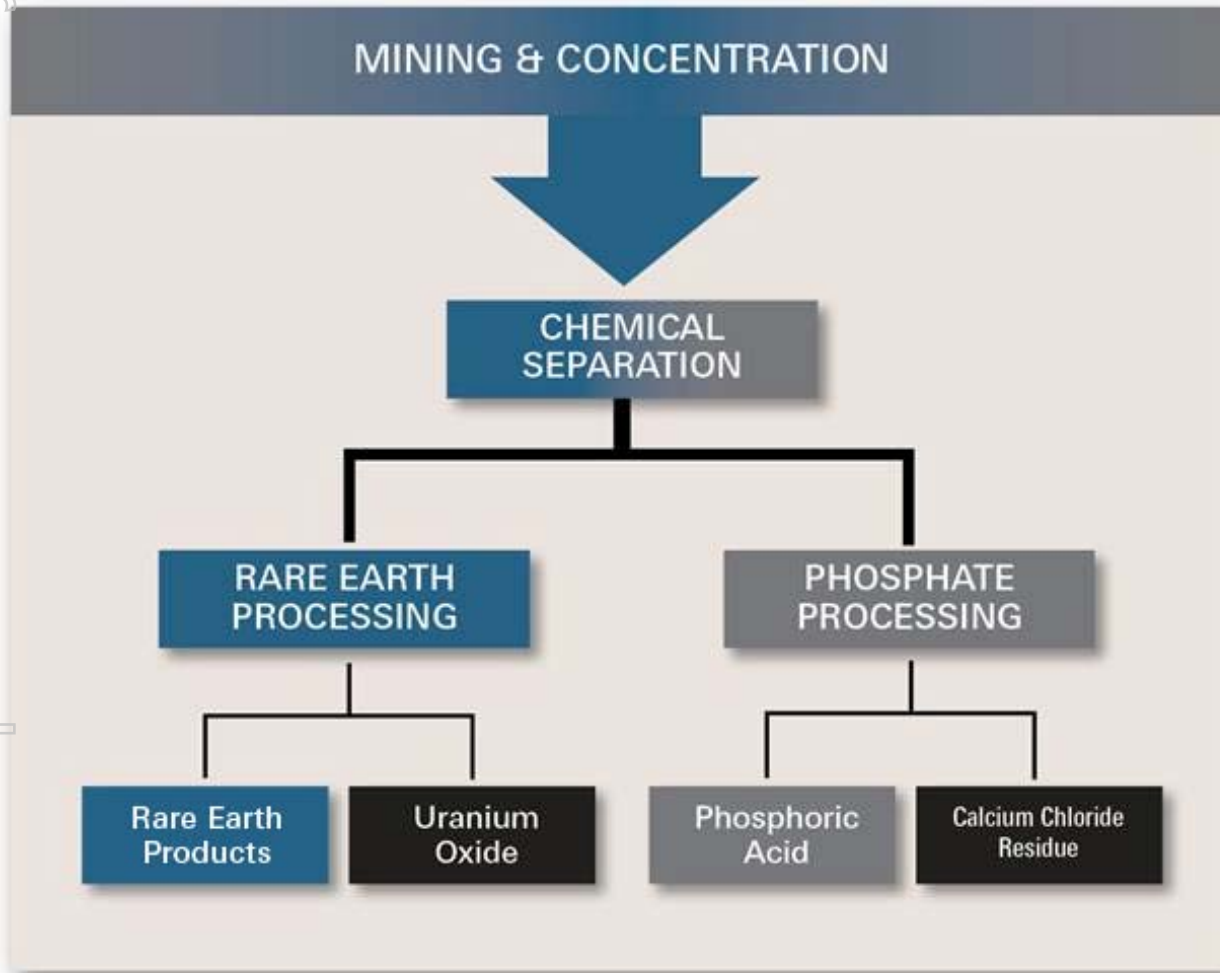
1. Using 1% REE cut-off grade



- Exposed at surface
- Size extent unknown
- Only drilled to 130m below surface
- Estimated initial mine life 20+ years; nevertheless
- Further drilling planned to expand resource base and reduce resource risk

Our Process

For personal use only



Processing technology makes a successful rare earths company

Arafura intellectual property developed to specifically exploit the Nolans deposit.

Proven process from mine site to product through Demonstration Plant

Demonstration plant a success.

For personal use only



Heavy Media Separation



Froth Flotation

Utilising the expertise of ANSTO

Utilising the expertise of Bateman Litwin



Rare Earth Processing



Acid Bake



Phosphoric Acid SX



Rare Earth Carbonate



Uranium



Phosphoric Acid & CaCl₂

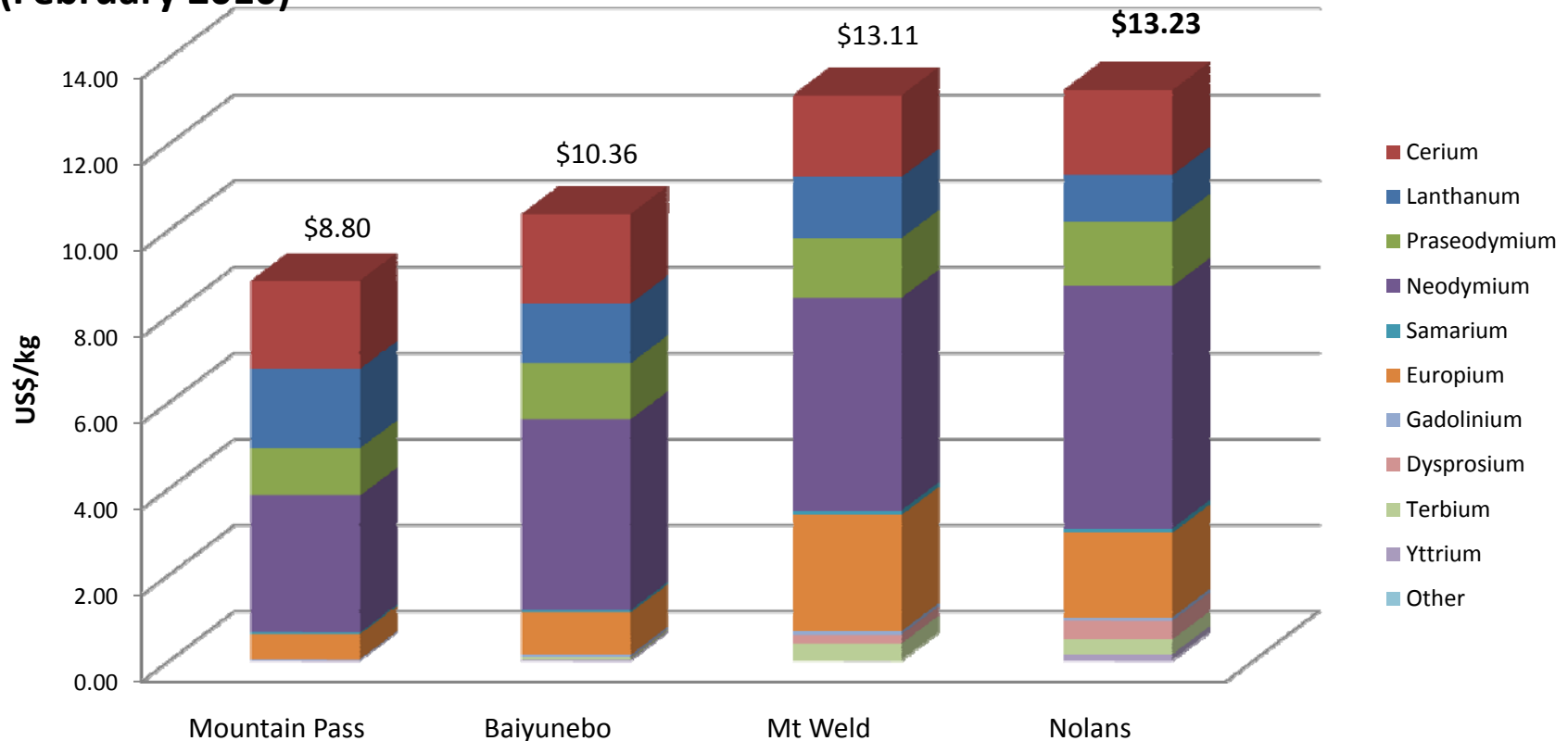
Nolans has a superior rare earth mix

For personal use only

Rare Earth Oxide	Applications	Nolans Australia	Mt Weld Australia	Mountain Pass USA	Baiyunebo China
Lanthanum	Petroleum cracking catalysts; Batteries (NiMH)	19.74%	25.6%	33.2%	27.1%
Cerium	Autocatalysts; Glass; Polishing	47.53%	45.74%	49.1%	49.86%
Praseodymium	Magnets; Glass	5.82%	5.42%	4.34%	5.15%
Neodymium	Magnets (NdFeB)	21.2%	18.62%	12.0%	15.4%
Samarium	Magnets (SmCo)	2.37%	2.44%	0.8%	1.15%
Europium	Phosphors; Nuclear control applications	0.4%	0.55%	0.12%	0.19%
Gadolinium	Intravenous contrast agents; Phosphors	1.0%	0.97%	0.17%	0.4%
Terbium	Phosphors	0.08%	0.09%		
Dysprosium	Magnets (NdFeB); Lasers	0.33%	0.16%		0.3%
Yttrium	Phosphors; Metal alloys	1.32%	0.37%	0.1%	0.2%
Other		0.21%	0.04%	0.16%	0.03%

In Situ REO mix: a competitive advantage & more

In Situ REO value (February 2010)



Key growth markets of magnet & phosphors = 29% by Volume = 75% by revenue

Nolans resource has multi product capability, some other projects do not. For Nolans this reduces waste costs. Co-products of Phosphoric Acid and Uranium generate additional revenues and enhanced returns – a further competitive advantage.

Project Valuation November 2009

November 2009 Project Valuation (estimated costs)	US\$ million
Capital Costs	\$420
Sales Revenue	
Rare Earths separated products @ \$10,000/t	\$200
Phosphoric Acid @ \$750/t	\$60
Calcium Chloride @ \$100/t	\$40
Uranium @ \$50/lb	\$15
Total Revenue p.a	\$315
Annual Operating Expenses	(\$150)
EBITDA p.a	\$165
NPV @ 10% after tax and capital payback	\$1,100
Capital Payback - 6 years	

- Capex and Opex will be further refined through 2010.
- Demonstration plant has reduced Opex through efficient chemical consumption & increased margins due to better recoveries.

Moving forward – the next steps

For personal use only

2010 - 2013

- Extensive drilling program to increase resource base and reduce resource risk.
- Site Selection, EIS, Mine Studies, Regulatory approvals
- Refine the debt/equity structure.
- Actively seek appropriate strategic partners and financiers
- Construction
- Production

Corporate Information

For personal use only

Registered Office

Arafura Resources Ltd
Level 5, 16 St Georges Terrace
Perth WA 6000
Telephone +61 8 6210 7666
Facsimile +61 8 9221 7966

Share Registry

Security Transfer Registrars
770 Canning Highway
Applecross WA 6153
Telephone +61 8 9315 2333
Facsimile +61 8 9315 2233



A R A F U R A
RESOURCES LIMITED

Level 5, 16 St Georges Tce
Perth WA 6000
PO Box 3047, Adelaide Tce
Perth WA 6832

Web: arafuraresources.com.au

Gavin Lockyer

CFO/Company Secretary

Telephone: +61 8 6210 7666
Facsimile: +61 8 9221 7966
Mobile: +61 419 914 072

Email: gjl@arafuraresources.com.au

For a copy of the 2009 Financial report or further information please visit
www.arafuraresources.com.au

VISIT US AT BOOTH C11&12



A R A F U R A
RESOURCES LIMITED

For personal use only



Thank You