

ARAFURA ADDING VALUE IN AUSTRALIA
TO PRODUCE RARE EARTHS
FOR USERS WORLDWIDE



Worldwide Targeted Customer and Investor Discussions

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



Contents

- Introduction to Arafura and the Nolans Project
- The Rare Earth Oxide (REO) Market
- Investment Opportunities in Arafura



Introduction to Arafura and the Nolans Project

Introduction to Arafura

Corporate Summary

- Australian Public Company – formed 1997
- Listed on ASX in 2003 (code ARU)
- Nolans Project for Rare Earths
- Own technology developed
- **Bankable Feasibility Study due H2 2012**
- **Project Financing sought by end 2012**
- **First production by end 2014 subject to BFS**

As at 22 September 2011

Capital

368 million shares
16.5 million Board/Employee options

Market capitalisation

@ A\$0.61 = ~A\$224 million

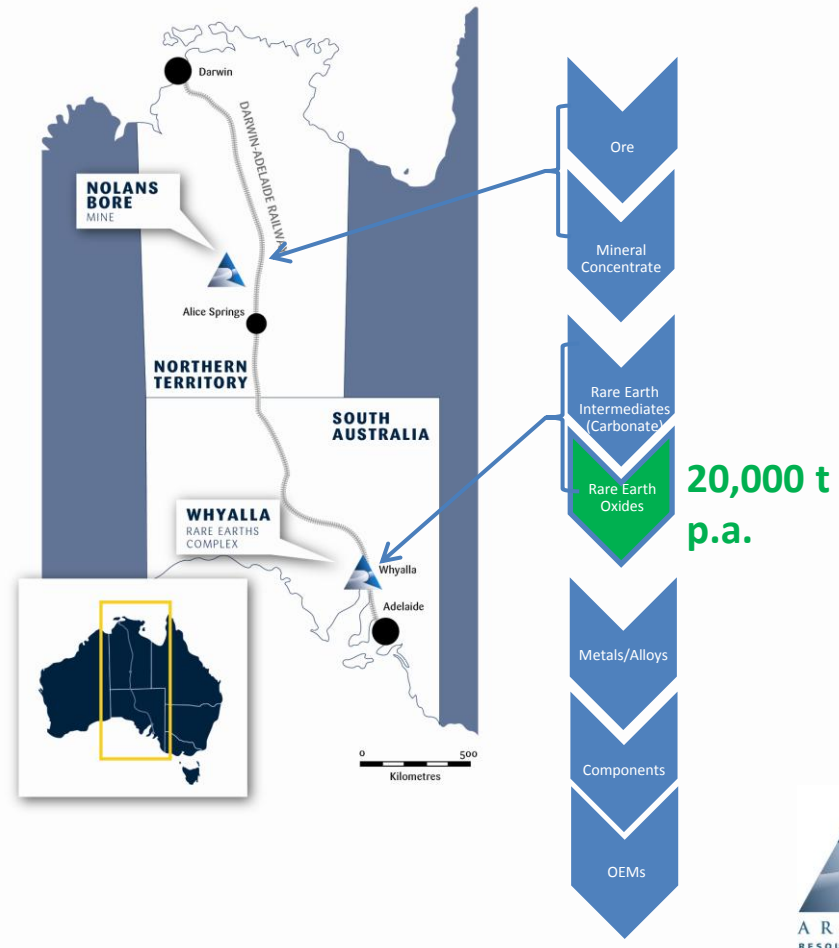
Top shareholders

JP Morgan Nominees ¹	31.5%
ECE ²	17.51%
Board & Management	2.5%

Debt - zero

Cash \$ 60 million (31 August 2011)

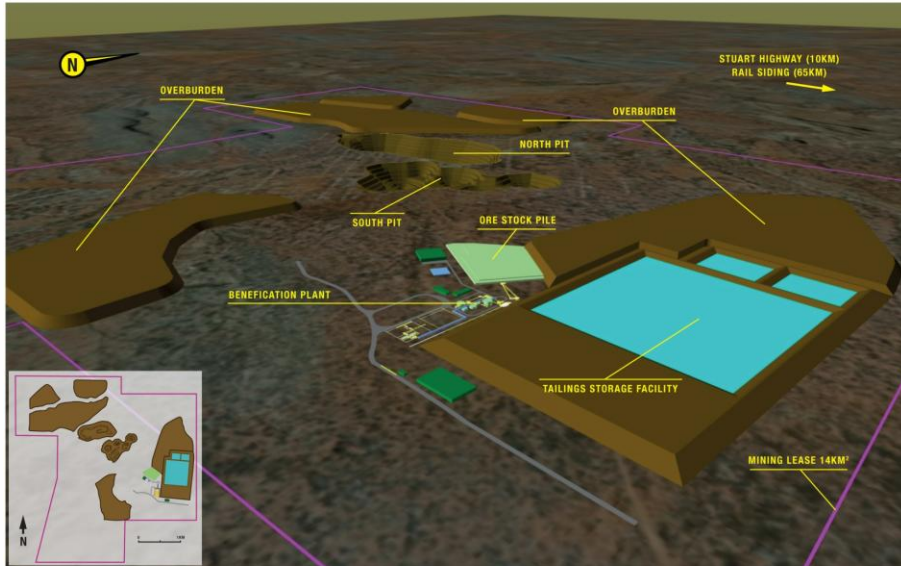
Business Model - Adding Value in Australia



Nolans Bore Mine & Whyalla Rare Earths Complex



NOLANS BORE MINE LAYOUT
ARTIST'S IMPRESSION

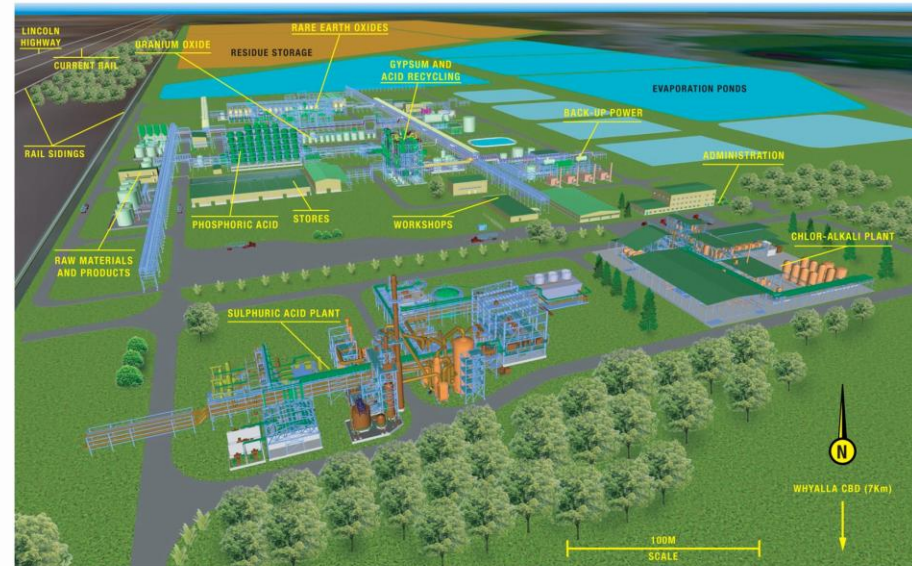


Version 1 - August 2010

The Nolans Bore Mine and its supporting infrastructure will act as a catalyst for business opportunities throughout Central Australia



ARAFURA RARE EARTHS COMPLEX
ARTIST'S IMPRESSION



Version 1 - August 2010

The Whyalla Rare Earths Complex will be a very substantial chemical processing operation by Australian standards



Nolans Project - Key Information

- Excellent support from Federal, Northern Territory (NT) and South Australian (SA) governments
- Major project status from South Australian Government
- Strong support from local communities in both NT and SA locations – community engagement ongoing
- Technology designed to meet highest environmental standards – EIS guidelines issued and studies underway in both locations
- Rare earths recognized as a strategic material
- Significant capital expenditure – will bring direct developments worth over \$1 Billion in total (Arafura + others) to Australia at Nolans and Whyalla

Expert Resources Engaged

Our approach has been to use well-known world wide experts.....

Operational, Technology and Regulatory:

- Australian Nuclear Science and Technology Organisation (ANSTO)
- Bureau Veritas - AMDEL
- ALS - AMMTEC
- Bateman Litwin
- Commonwealth Scientific and Industrial Research Organisation (CSIRO)
- SGS
- GHD
- AECOM

Mining & Engineering:

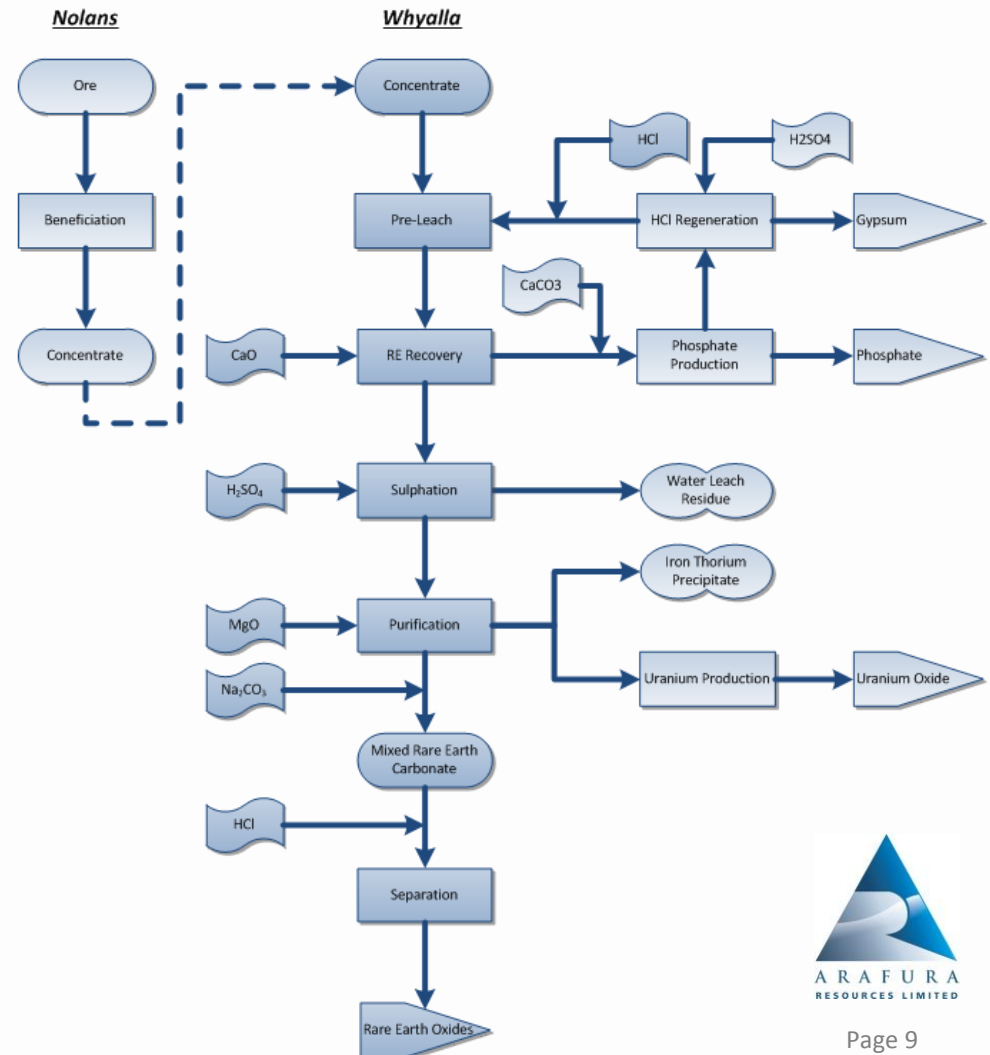
- Lycopodium
- Parson Brinkerhoff
- Battery Limits
- AMEC Minproc

Building a sustainable business for the Future

Arafura is 'going the extra mile' to 'get it right' first time and ensure success

Nolans Project Flow Diagram

- Australian developed & proven flow sheet – not reliant on others
- Additional flowsheet demonstration programs at scale are underway to de-risk start up & achieve nameplate capacity quickly – see next slide
- Demonstration programs will also provide potential customers and financiers opportunities to observe and assess our operations for their due diligence.
- Environmental Guidelines of the highest standards have been issued as anticipated. No surprises, most studies completed or well advanced.



Technology

The flowsheet has been proven as shown and is now undergoing demonstration and optimization to de-risk further, focus on rare earths, customize products for target customers, provide detailed design data, confirm EIS data and capture more of intrinsic value



Gypsum from HCl Regeneration Plant 2011



Water Leach Piloting 2009



Mixed REO Carbonate Production - 2009



Sulphation Baking 2009

**All Australian developed
technology**

Where are we now?

Already a long way through a lengthy industry development timeline, one of the few advanced World scale projects

We are here

Completed with project finance in place by end 2012 - ON TRACK



- Exploration Began 2000
- Maiden JORC Resource 2003

Approx 15 years for a rare earths project

- Technology Program began 2004
- Prefeasibility study issued 2007

- **At time of completed BFS:**
- **Approx 100km of drilling completed at Nolans**
- **Approx total project expenditure \$250M**

- Current JORC Resource 2008
- Technology piloting 2008/09
- Whyalla site announced 2010
- Technology demonstration 2010 & 2011
- Appointment of specialist engineering contractor early 2011
- Expanded BFS Rare Earth focus 2011
- First Customer LOI 2011
- Expansion drilling program 2011
- **Complete optimization**
- **Finalize detailed design**
- **Secure regulatory approvals**
- **Complete sales contracts with target customers**
- **Obtain Project Finance**

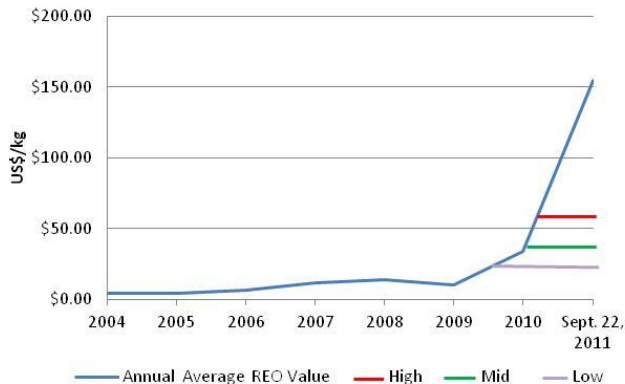


Nolans Project – Globally Significant

High potential value, long life, multiple revenue streams with upside potential....

Annual Production	
REO Rare Earths Oxides	20,000 t
Phosphate Product (approximately)	80,000 t
UO ₄ Uranium Oxide	150 t
CaSO ₄ Gypsum	500,000 t

Nolans Value 2004 - Sept. 2011
Comparison to
Financial Evaluation Price Levels



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

Financial Evaluation October 2010

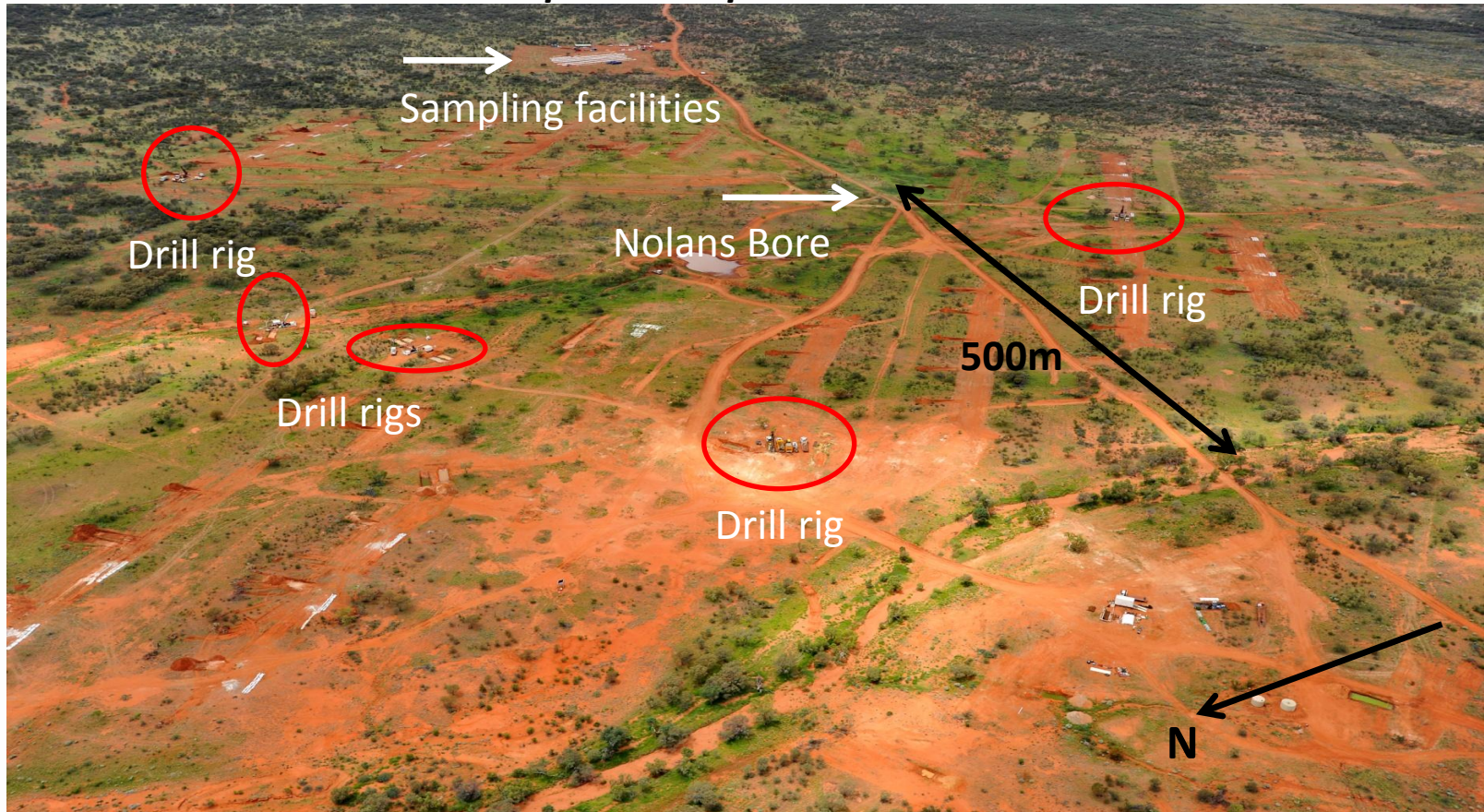
October 2010 Project Economics			
Capital Costs @ 0.95		A\$950 million	
Sales Revenue		US\$	
	Low	Mid	High
Rare earth oxides US\$/kg	\$22.00	\$38.00	\$54.00
Rare earth oxides 20,000t US\$	\$440	\$760	\$1,080
Phosphoric Acid 80,000t US\$1,250/t	\$100		
Gypsum 500,000t US\$25/t	\$12		
Uranium 150t US\$40/lb	\$13		
Total Revenue p.a. US\$M	\$565	\$885	\$1,205
		A\$M	
Total Revenue p.a @ 0.95	\$595	\$932	\$1,268
Annual Operating Expenses @ 0.95	(\$376)		
EBITDA p.a	\$219	\$556	\$892
NPV @ 10% after tax and capital payback	\$1,420	\$4,050	\$6,549
Capital Payback - years	5	4	3

→ Current price
(Sept. 22, 2011)
US\$155/kg



Expansion possibility

World scale resource with possible upside.....



Further drilling program completed and analysis of samples now underway to identify the full size and extent of the Nolans Bore resource . Nolans may be able to support expanded production. New



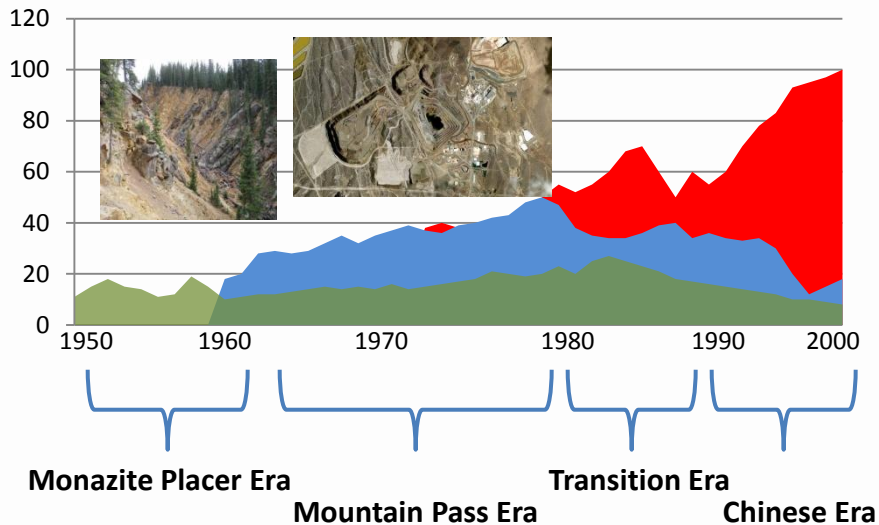
The Rare Earth Oxide Market

Market Overview

- Current annual global consumption 130kt
- Major geographic markets are China and Japan; lesser amounts in Europe, USA and Korea
- Current annual value US \$20 Billion
- China currently produces 97% of global supplies
- Future demand growth very strong: two to five times GDP depending on application
- China production declining – closure of polluting and illegal operations
- China reducing supplies to rest of world by tightening export quotas
- Overall market very tight – supplies short
- Worldwide users seeking new supply sources from outside China
- Few new supply sources this decade - much ‘probable unrealistic’ speculation
- ***PERFECT STORM & OPPORTUNITY FOR ARAFURA***

Rare Earths – Entering a New Era, Supply Shortage

USGS report: Uncertainty after 2002

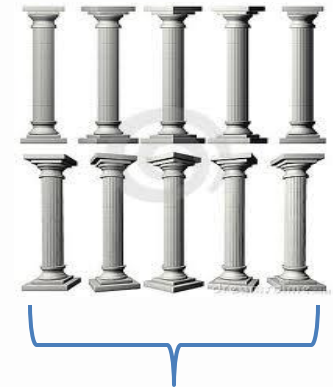


New Western Supply Era 2011-2015



- Demand soars
- Supply transitions
- Prices increase
- China export quotas
- Environmental costs

Supply Opportunity Era 2016-2020



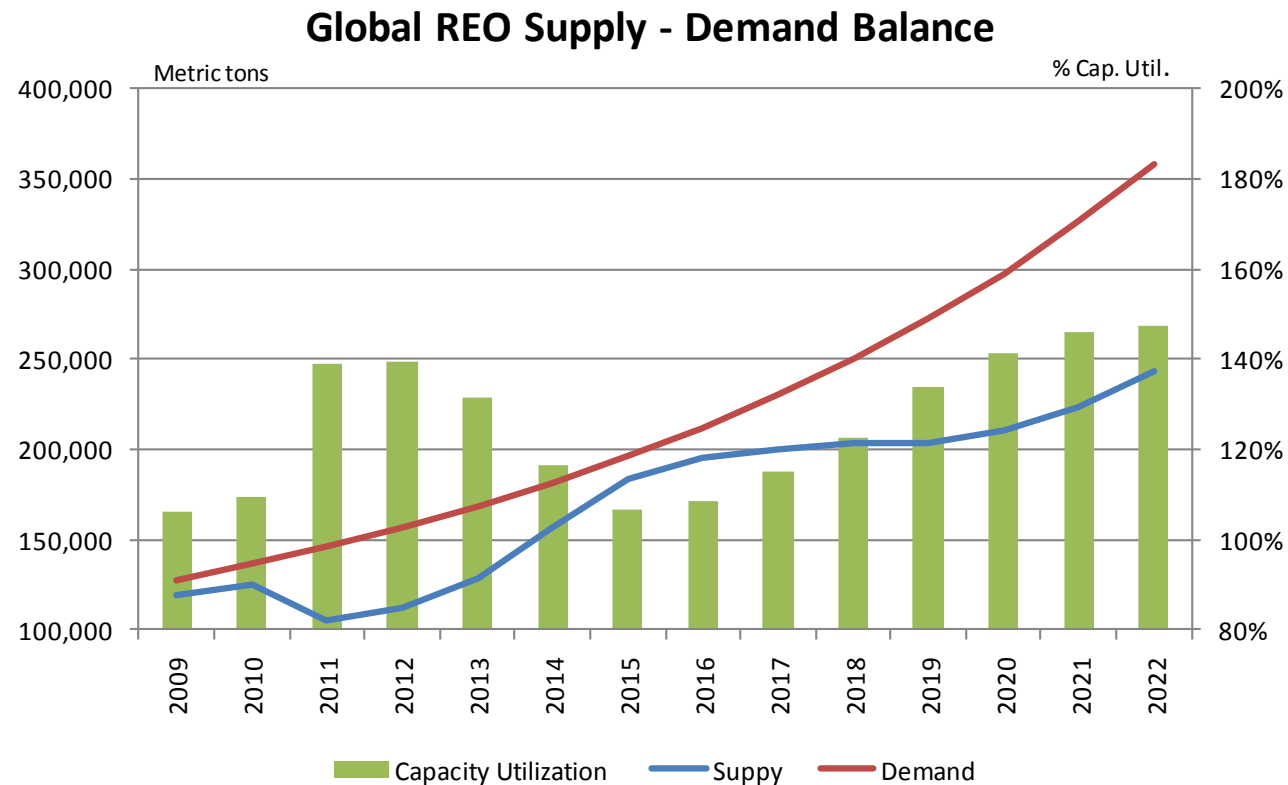
- China a net importer
- Long lead time for capacity
- 20,000 tpa additional supply required each year
- Where will supply come from...?

Global shortage exacerbated outside China by Chinese export quota reductions



Supply and Demand

- **Total Rare Earth Oxide (REO) supply growth does not keep up with demand growth rates in any year!**
- **Capacity utilizations bottoms out in 2015 at 107%**
- **Global demand requires another ~20,000 mt. supply (a Nolans project) each year above current supply forecasts**
- **Unclear where the supply will come from**
- **On an individual rare earth basis 'Lights' (Ce and La) are most plentiful but are 'snug' at their easiest point and then short**

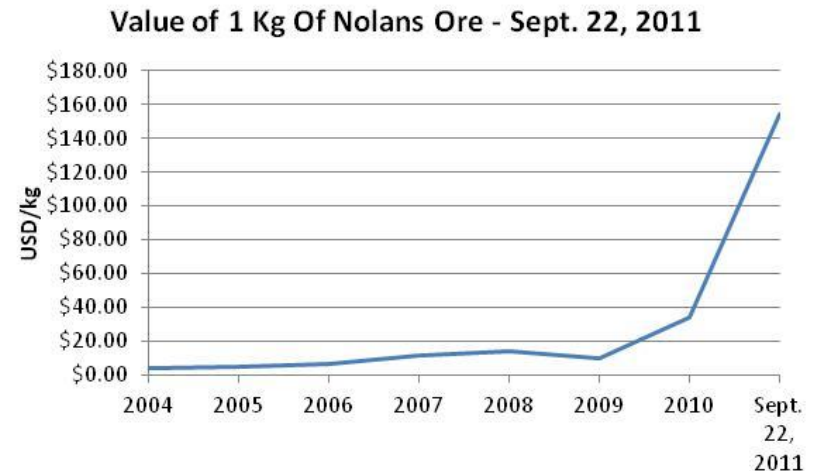
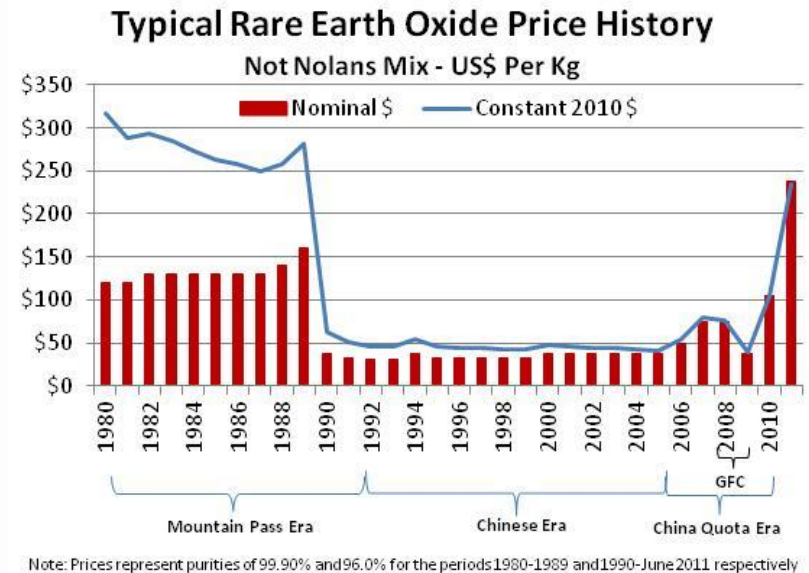


Based on Arafura's research of the market

Price trends

Prices in real terms have returned to long term levels prior to low price 'Chinese era'

- 1990 to 2005 low priced era driven by unsustainable low cost Chinese production
- 2006 prices begin to rise with first Chinese export quotas
- 2007 to 2008 prices fall due to soft demand in GFC
- 2009 prices begin to recover as post GFC demand increases
- 2010 to 2011 prices increase markedly as demand accelerates, Chinese production reduces (closure of polluting and illegal operations) and Chinese export quotas tighten
- 2012+ Low priced era is over, prices will follow supply/demand dynamics



Target Customer Interaction Program

- Interest in Arafura REO products is high
- Arafura has identified target customers worldwide with whom it would like to develop mutual long terms relationships
- Meetings in progress with target customers in Japan, Korea, Europe and USA
- Products currently being tailored to target customer requirements
- Target customer sampling program will commence in Q4 2011
- Letter of Intent (LOI) and supply agreement negotiations underway
 - First LOI already signed with Thyssen Krupp
- Arafura is only new supplier with significant volumes available for sale



Investment Opportunities in Arafura

Investment Opportunity

Funding requirements:

- Current cash on hand approximately \$60 million will fund ongoing activities.
- Requirements for next 12 months are approximately an additional \$60 million before project financing. Approximately 25% relates to engineering and asset costs brought forward, previously included in project finance.

Expected position in 12 months leading to Project Finance:

- Less than 500 million shares on issue &
- No debt

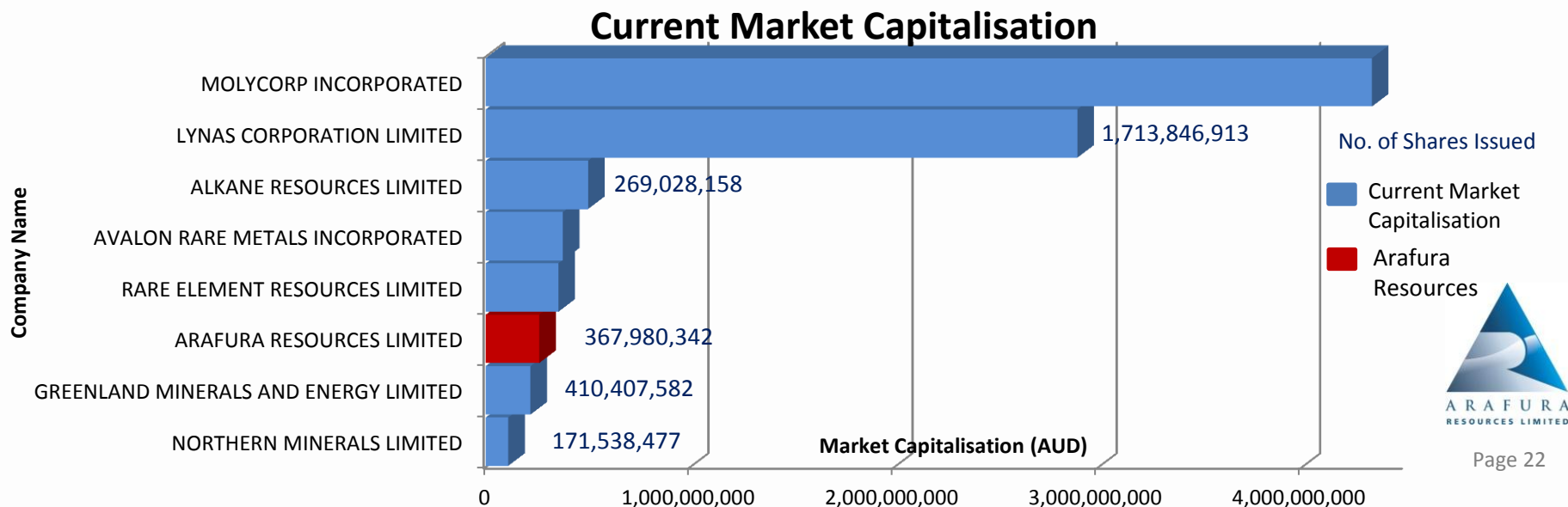
Project Finance:

- Consideration will be given from all possible sources:
 - Customers (forward sales)
 - Suppliers
 - Debt & Equity markets
 - Sovereign debt markets
 - Other (PIPES, Mezzanine etc)

Rare Earth Project Comparison

Arafura is undervalued compared to industry peers.....

Exploration	Prefeasibility Study	Bankable Feasibility Study	Construction	Operations
Northern Minerals (ASX: NTU)	Greenland Minerals & Energy (40 kt) (ASX: GGG)	Arafura (20 kt) (ASX: ARU)	Molycorp (40 kt) (NYSE: MCP)	Molycorp reprocessing (< 5 kt)
	Rare Element Resources (10 kt) (NYSE: REE)	Alkane (1.5 kt) (ASX: ALK)	Lynas (22 kt) (ASX: LYC)	
		Avalon Rare Metals (10 kt) (TSX: AVL)		



Summary

- Robust and well regarded business model - Value add in Australia
- World scale and value creating Nolans Project with possible upside
- Nolans Project well advanced and likely to be one of very few new supply sources this decade
- Significant government and community support – EIS to highest standards underway
- Australian developed and proven technology. Now going the extra mile to optimize, de-risk, get it right first time and ensure success
- On-track for completion of BFS and Project Financing in place by end of 2012
- Discussions are in progress with target customers worldwide outside China
- ‘Undervalued’ compared to peers - investment opportunity

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Arafura Resources
A Key Part of The New Rare Earths Supply Era