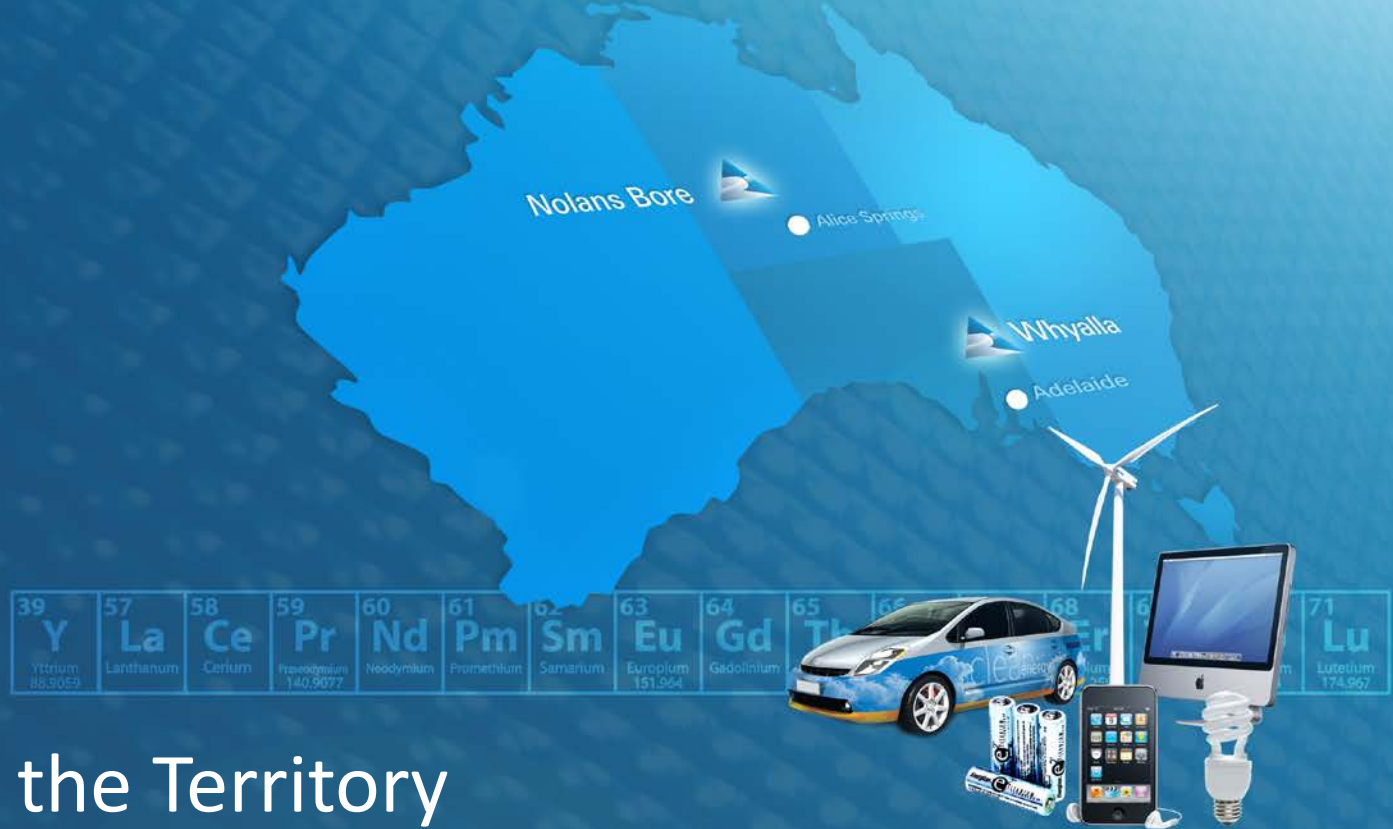


ARAFURA ADDING VALUE IN AUSTRALIA
TO PRODUCE RARE EARTHS
FOR USERS WORLDWIDE



Mining the Territory

Neil Graham
General Manager - Operations
5th October 2011

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The information in this presentation that relates to exploration results, mineral resources or ore reserves is based on information compiled by Mr Richard Brescianini BSc(Hons). Mr Brescianini is a Member of the Australian Institute of Geoscientists and he 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 Brescianini consents to the inclusion in this presentation of the matters based on his information in the form and context in which it appears.

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

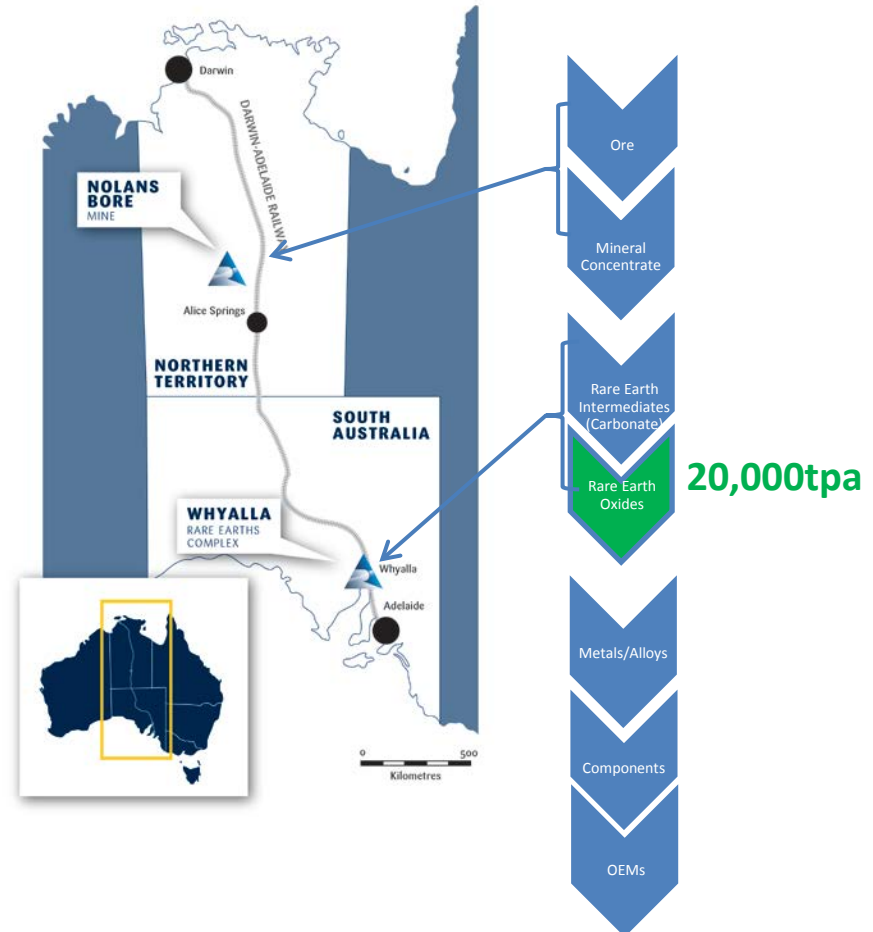
- Introduction to Arafura
- Rare Earths Introduction
- Rare Earths Market
- Nolans Project
- Summary

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**

Business Model - Adding Value in Australia



As at 28 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 A\$60 million (31 August 2011)

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

Rare Earths Introduction

An exciting market outlook in new high technology applications and clean and efficient energy uses, with increasing demand driven by consumers, society & regulators

New Generation Vehicles



Colour Screen LCDs/PDPs



Medical Services



AN EMERGING RARE EARTHS PRODUCER FOR USERS WORLD WIDE

39 Y Yttrium 88.9059	57 La Lanthanum 138.9055	58 Ce Cerium 140.116	59 Pr Praseodymium 140.9077	60 Nd Neodymium 144.24	61 Pm Promethium (145)	62 Sm Samarium 150.36	63 Eu Europium 151.964	64 Gd Gadolinium 157.25	65 Tb Terbium 158.9253	66 Dy Dysprosium 162.5	67 Ho Holmium 164.9303	68 Er Erbium 167.259	69 Tm Thulium 168.9342	70 Yb Ytterbium 173.04	71 Lu Lutetium 174.967
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Rechargeable Batteries



Energy-Efficient Lighting



High-Powered Electric Motors

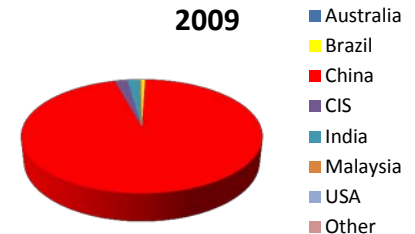


- Specialty Chemicals
- Critical components of end products
- Small cost item
- No substitutes
- Limited recycling
- Global market 130kt
- Annual value US\$ 20B
- Worldwide major markets

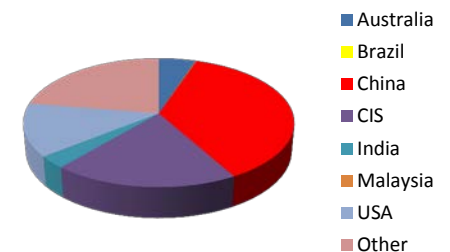


- China currently produces 97% of global supplies
- Future demand growth very strong: two to five times GDP depending on application
- China production declining – closure of unsustainable operations
- China reducing supplies to rest of world by tightening export quotas
- Overall market very tight – supplies short
- Worldwide users seeking new supply sources from outside China
- Few new supply sources this decade - much ‘probable unrealistic’ speculation

**Global REO Production
2009**

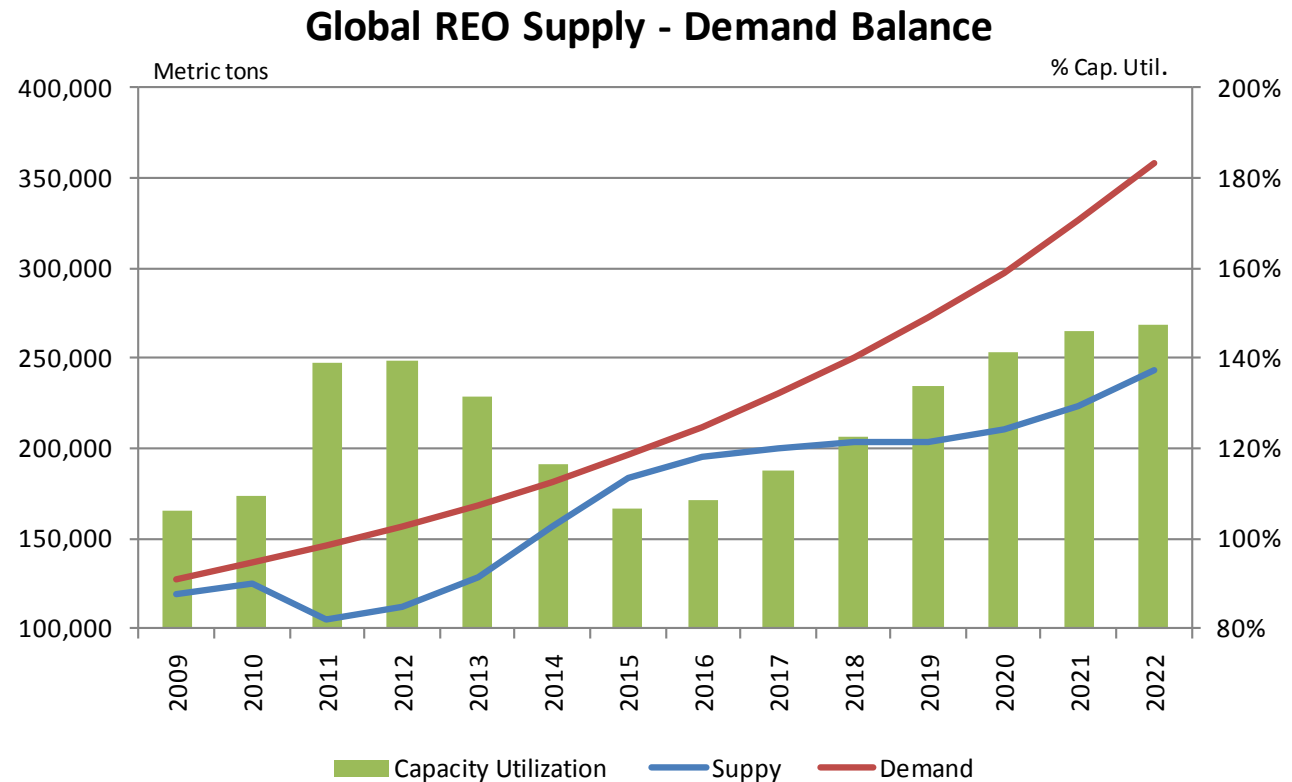


Global REO Reserves 2009



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

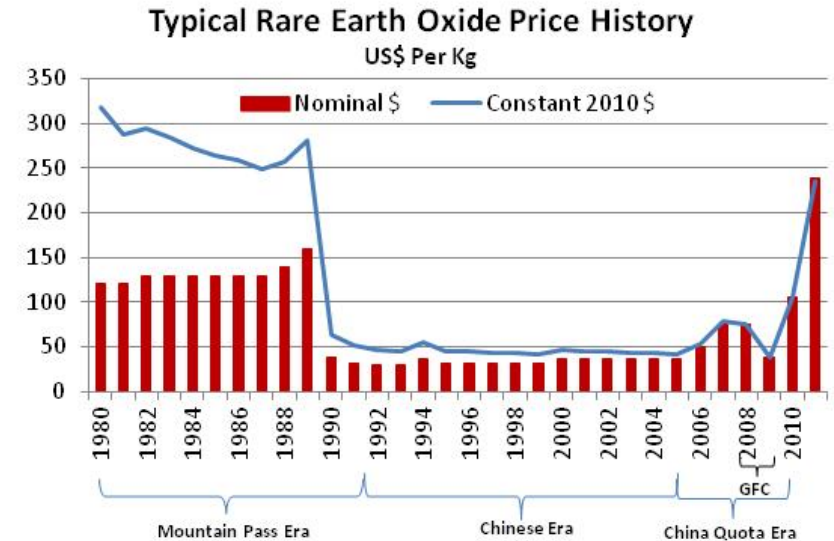


Based on Arafura's research of the market

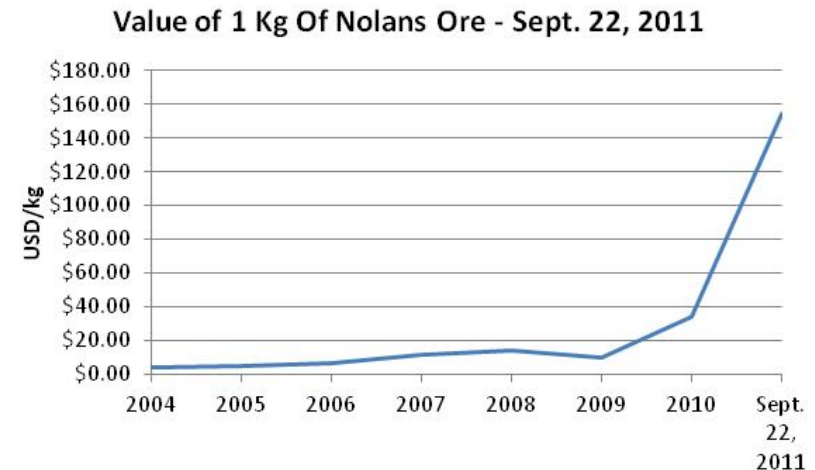
Price trends

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



Note: Prices represent purities of 99.90% and 96.0% for the periods 1980-1989 and 1990-June 2011 respectively



Nolans Project – Key Information

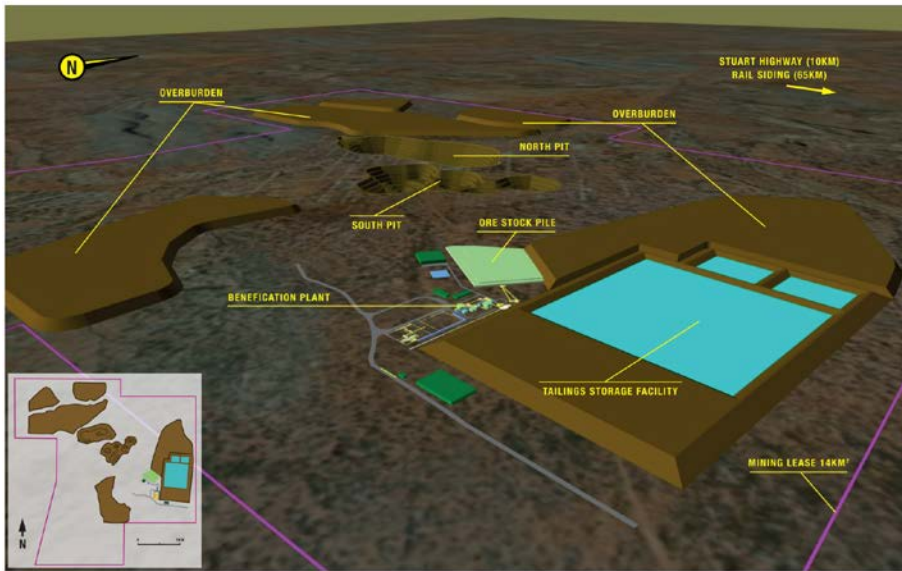
- Excellent support from Federal, Northern Territory and South Australian governments
- Strong support from local communities in both NT and SA locations – community engagement ongoing
- Major project status from South Australian Government
- Technology designed to meet highest environmental standards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

Nolans Project: world-scale

Arafura will act as a catalyst and 'critical mass' for value creation in Northern Territory and South Australia ...



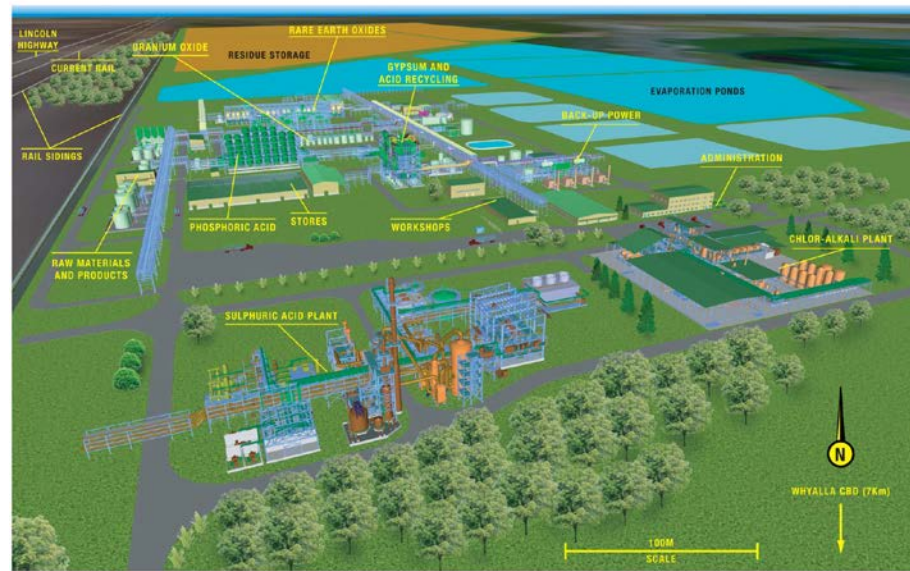
NOLANS BORE MINE LAYOUT
ARTIST'S IMPRESSION



Version 1 - August 2010



ARAFURA RARE EARTHS COMPLEX
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

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

- Geochemistry of each rare earth deposit is different requiring in-depth understanding;
- Unique separation technology must be developed for each deposit;
- Production is high technology and capital intensive

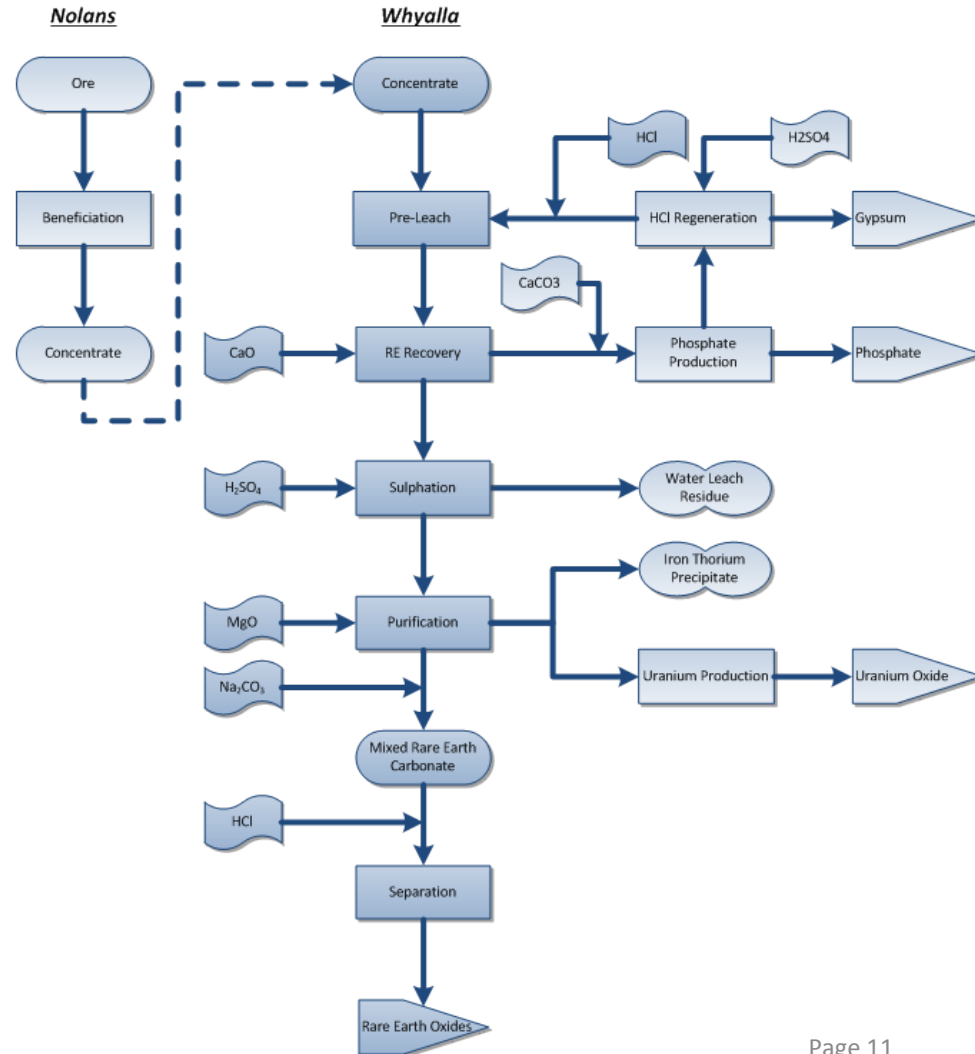
Building a Sustainable Business for the Future

- Long life deposit 20 years + resource with expansion possibility.
- Australian based business model, low sovereign risk.
- Australian developed & proven flowsheet not dependant on others.
- Environmental Guidelines of the highest standards will be achieved.

Executing additional programs to:

- De-risk :
 - Additional flowsheet demonstration programs at scale to de-risk start up & achieve nameplate capacity quickly.
 - Simplify flowsheet where possible.
- Customer and Financier due diligence:
 - Demonstration programs also provide potential customers and financiers opportunities to observe and assess our operations.
 - Tailoring high quality & high margin oxide products for specific customer use.

Nolans Project Flow Diagram



Nolans Bore exploration summary 1999-2011



1999 COMPREHENSIVE SURFACE ROCK CHIP SAMPLING SAMPLES AVERAGE ABOUT 7% REE

YEAR	COSTEANS		RC		CORE			RAB		WIDE DIAMETER		TOTAL m	IDENTIFIED MINERAL RESOURCES
	n	m	n	m	n	tails	m	n	m	n	m		
2000	6	890										890	
2001			12	856								856	3.82 Mt @ 4.0% REO for 152,800 t REO
2004			20	1525	5		518					2043	5.81 Mt @ 3.9% REO for 226,600 t REO
2005			58	7532	1	11	1040					8572	18.6 Mt @ 3.1% REO for 576,600 t REO
2006			51	4363	23	3	2255					5491	
2007			211	19949									
2008	3	333					7		792	420	4179		
2010										48	1656	1656	
2011			227	29904	57	126	22665					52569	Scheduled for release late 2011
TOTAL	9	1223	579	64129	93	140	27270	420	4179	48	1656	98457	

Nolans Bore mineralisation and resource



Massive apatite
This example contains about 6.5% REO



Massive apatite, allanitic apatite, calcsilicate alteration
This example contains about 3.3% REO

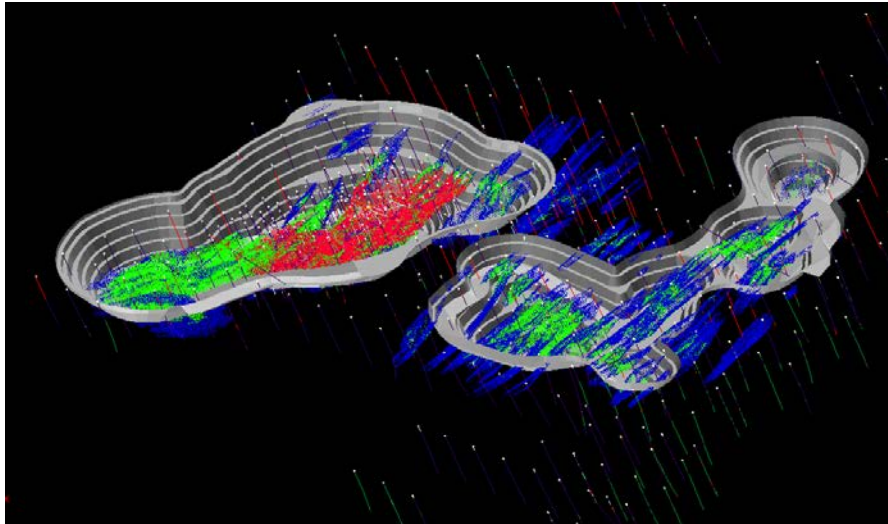
	Statement of Identified Mineral Resources ¹		
	Million Tonnes	%REO	Tonnes REO
Measured	5.1	3.2	163,200
Indicated	12.3	2.8	344,400
Inferred	12.8	2.6	332,800
TOTAL	30.3	2.8	848,400

¹ Exploremin November 2008; 1% REE cut-off

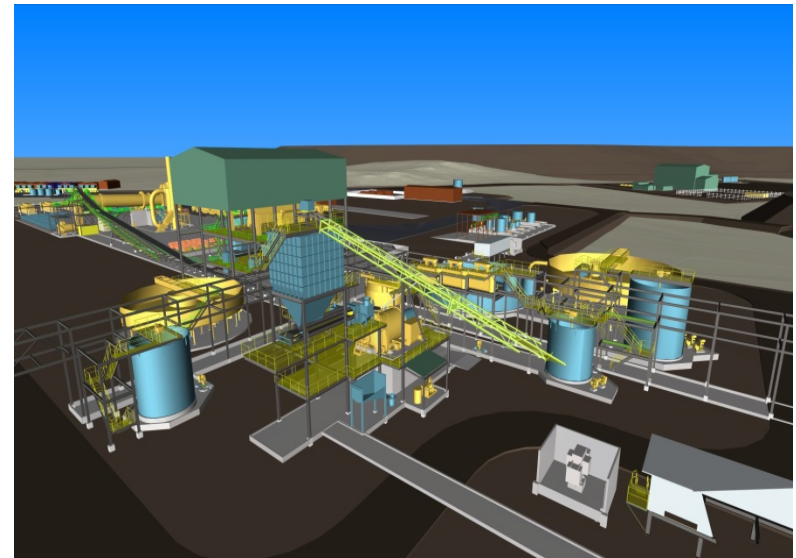
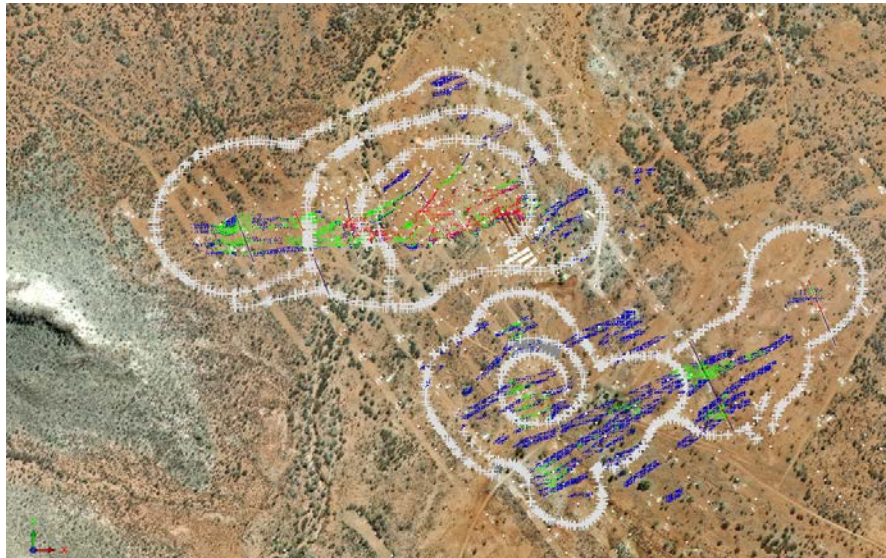


The hard logging yards at Nolans

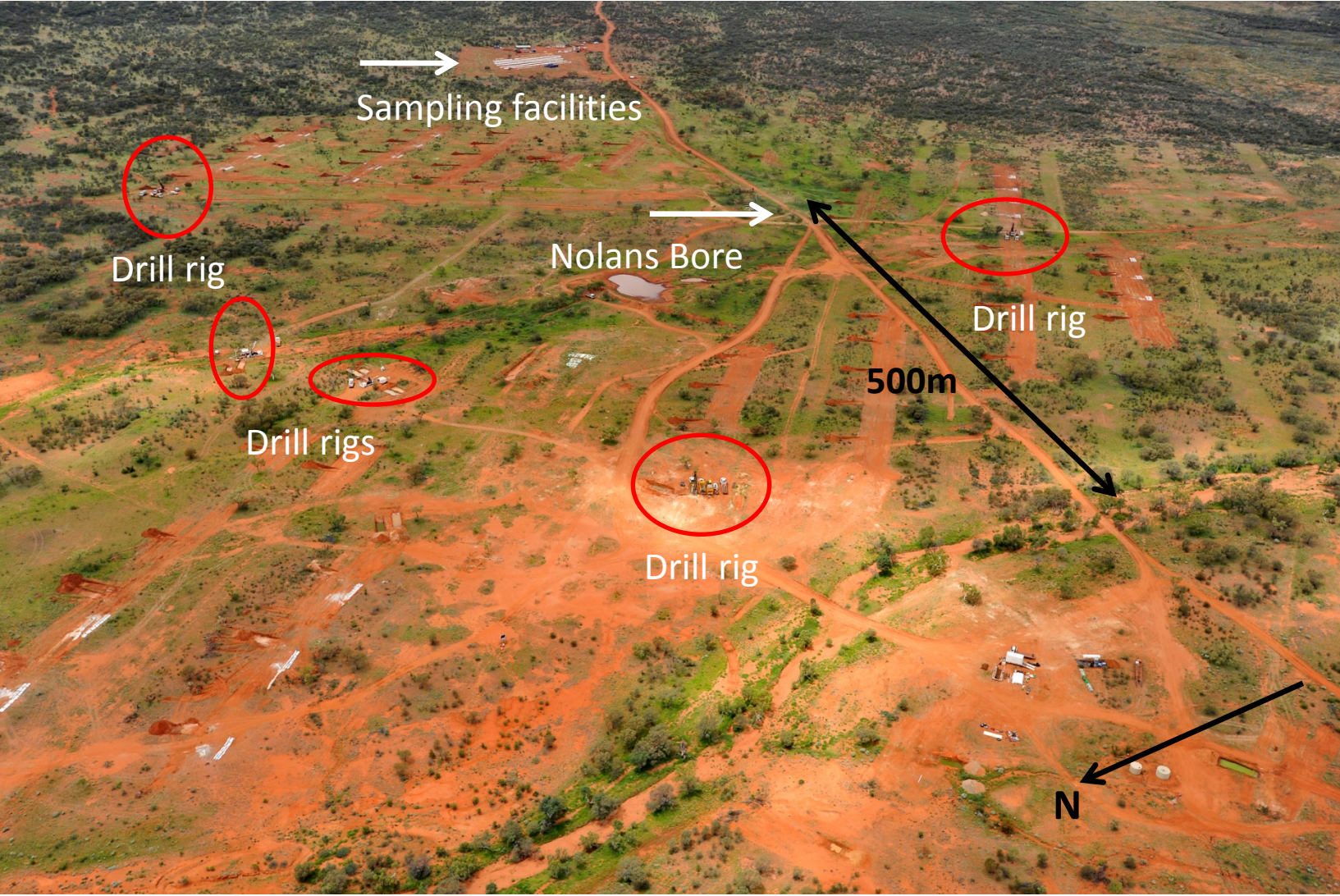
Nolans Bore preliminary pit designs



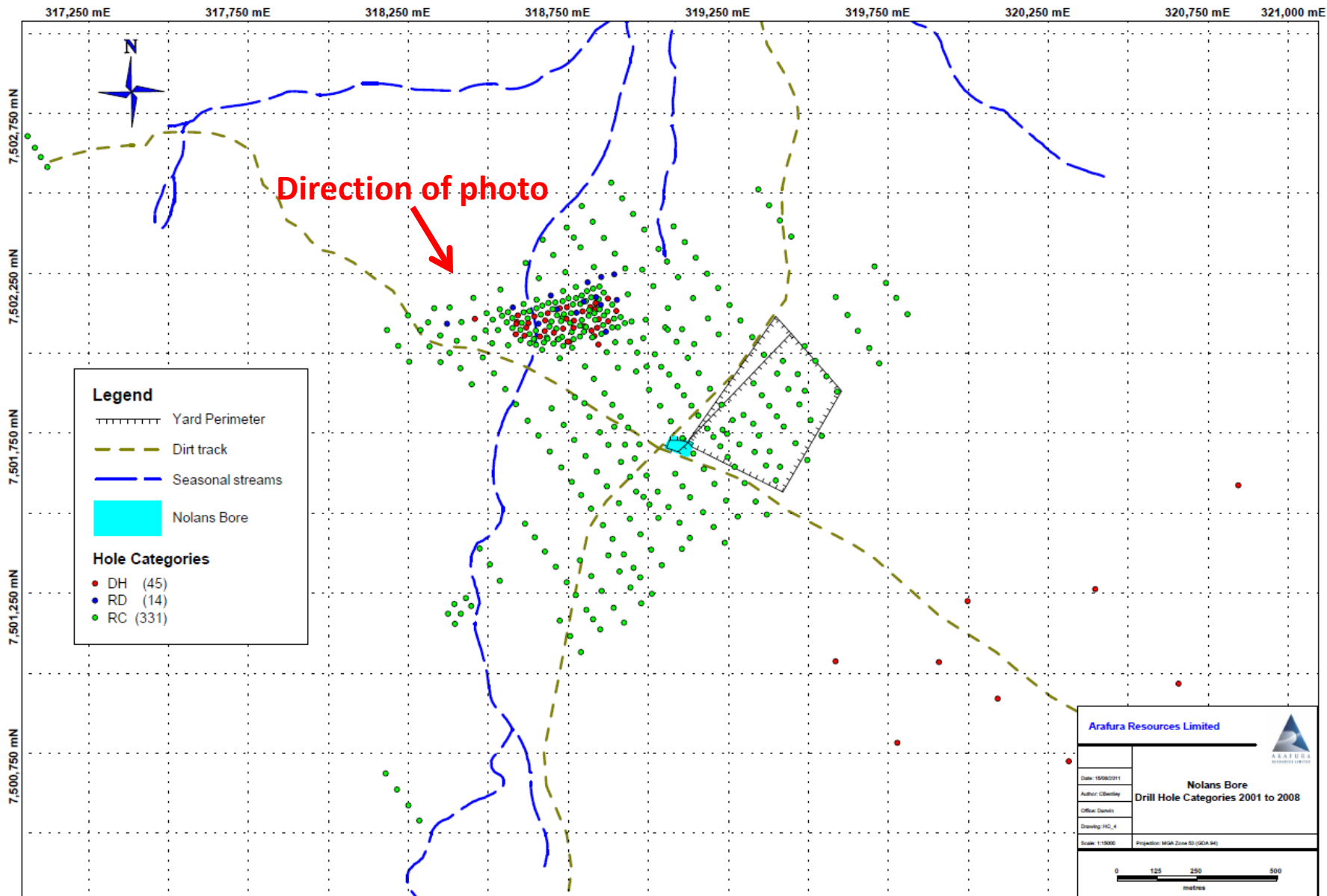
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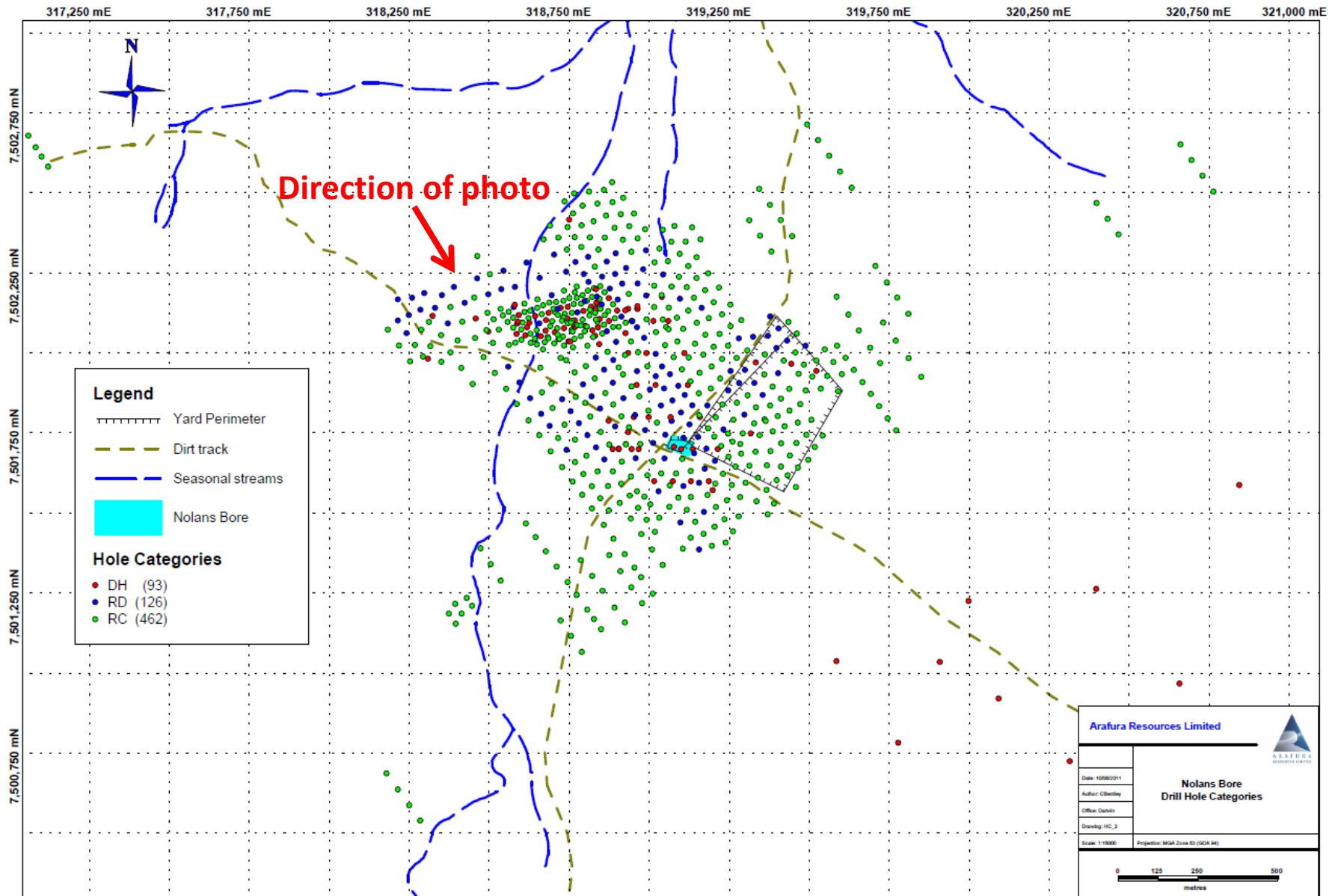
Nolans Bore 2011 expansion drilling program



Nolans Bore drilling 2001-2010



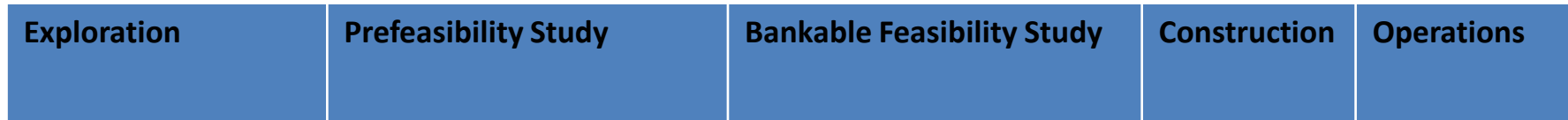
Nolans Bore all drilling (including 2011)



Where are we now?

We are here

***Completed with project
finance in place by end 2012***



Approx 15 years for a rare earths project

- Exploration Began 2000
- Maiden JORC Resource 2003

- Technology Program began 2004
- Prefeasibility study issued 2007

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

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

Technology development

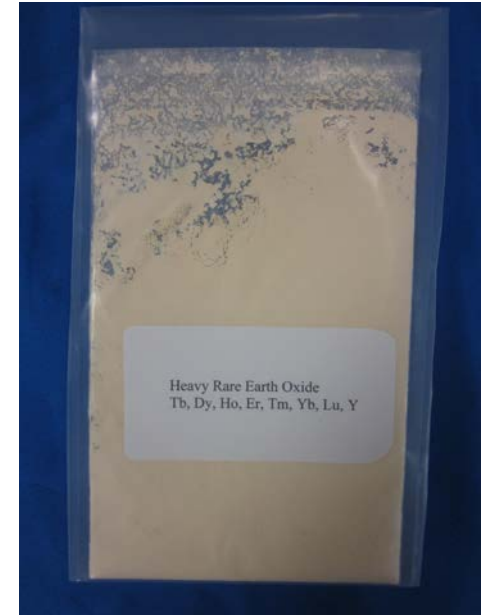
The flow sheet has been proven as shown and is now undergoing demonstration and optimization to de-risk further, focus on rare earths, customize products for target customers, provide detailed design data, confirm EIS data and capture more of intrinsic value



Gypsum from HCl Regeneration Plant 2011
ALS-Ammtec Perth



Water Leach Piloting 2009
ANSTO Sydney



HREO sample produced From
Nolans Bore ore in 2010



Mixed REO Carbonate production – 2009
ANSTO Sydney

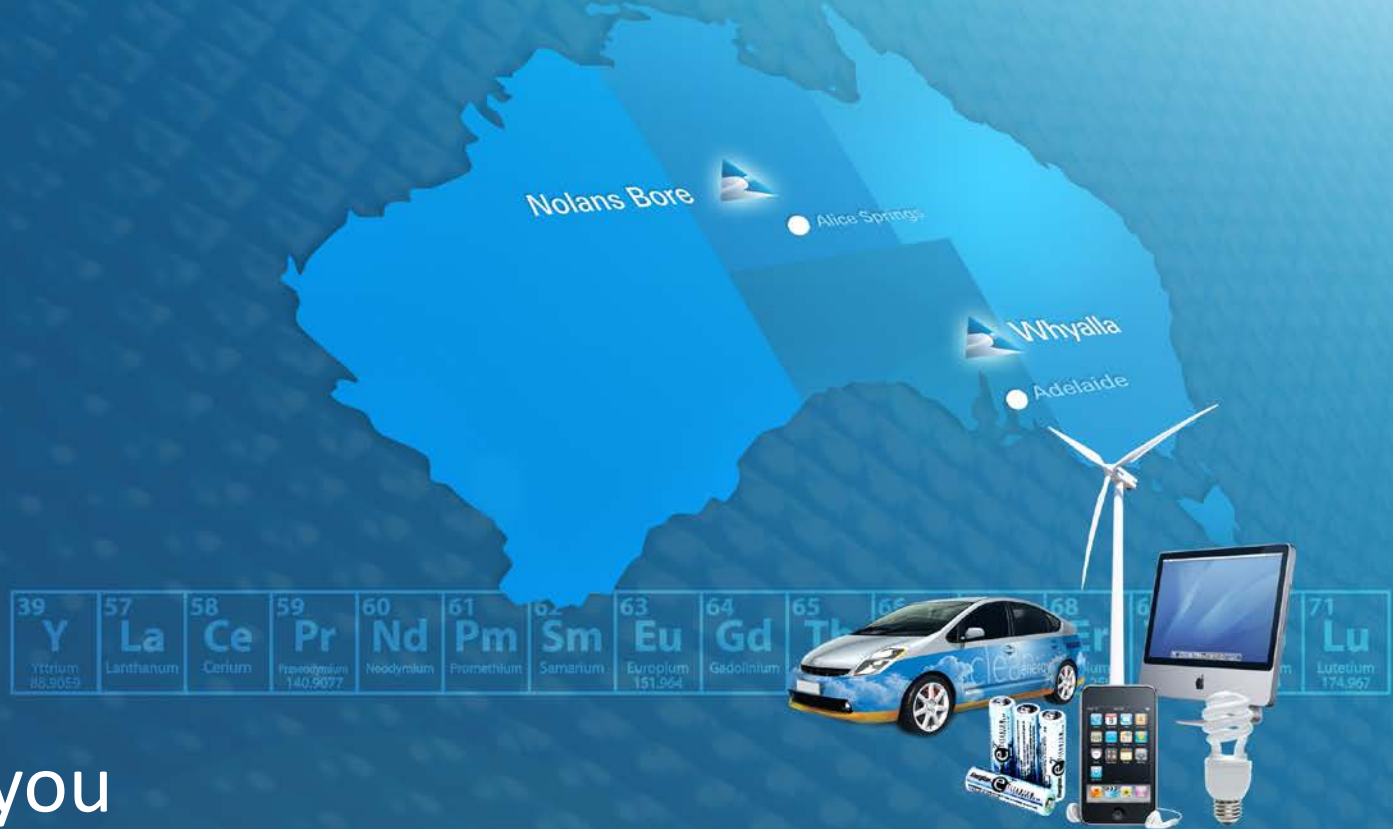


Sulphation Baking 2009
ANSAC Bunbury

**All Australian
developed technology**

- Arafura has a long-life strategic resource to develop in regional NT
- The Nolans Project progresses down the value chain to add more value in Australia
- Potentially a catalyst for further development
- Products utilised in high growth high technology applications for efficiency and lifestyle
- Arafura has successfully developed its own technology in Australia to exploit the world scale Nolans Bore resource
- Considerable time, money and effort is required to successfully develop a rare earths project – Arafura will have spent about 12 years and A\$250 million to complete the Nolans Project Bankable Feasibility Study
- Significant stakeholder support

ARAFURA ADDING VALUE IN AUSTRALIA
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FOR USERS WORLDWIDE



Thank you

Neil Graham
General Manager - Operations
5th October 2011