



# Rum Jungle Resources Limited

## TRANSITIONING FROM EXPLORER TO FERTILISER MINERAL PRODUCER

**INVESTORIUM MEETING**

**16<sup>th</sup> March 2014 Amended 20<sup>th</sup> March**

**DAVID MULLER- MANAGING DIRECTOR**





# Disclaimer and competent persons statements

*This presentation has been prepared by Rum Jungle Resources Limited ("RUM" or the "Company"). Nothing in this presentation should be construed as either an offer to sell or a solicitation of an offer to buy or sell Rum Jungle Resources' shares in any jurisdiction.*

*This announcement contains forward looking statements. Forward looking statements are not based on historical facts, but are based on current expectations of future results or events. These forward looking statements are subject to risks, uncertainties and assumptions which could cause actual results or events to differ materially from the expectations described in such forward looking statements. Although Rum Jungle Resources believes that the expectations reflected in the forward looking statements in this presentation are reasonable, no assurance can be given (and Rum Jungle Resources does not give any assurance) that such expectations will prove to be correct. Undue reliance should not be placed on any forward looking statements in this presentation, particularly given that Rum Jungle Resources has not yet made a decision to proceed to develop the Barrow Creek 1 Phosphate Project or any other project, and Rum Jungle Resources does not yet know whether it will be able to finance the Barrow Creek 1 Phosphate Project or any other project.*

*The information in this presentation that relates to Mineral Resources in respect of Rum Jungle Resources' Barrow Creek 1 deposit is based on information compiled by Mr Jonathon Abbott, a full-time employee of MPR Geological Consultants Pty Ltd and a member of the Australian Institute of Geoscientists. Mr Abbott has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity 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". Mr Abbott consents to the inclusion in this presentation of the matters based on his information in the form and context in which it appears. **This information was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.***

*The information in this presentation that relates to Exploration Results, Mineral Resources or Ore Reserves in respect of Rum Jungle Resources' potash resources is based on information compiled by Mr Ben Jeuken, a full-time employee of Groundwater Science Pty Ltd who is a member of the Australasian Institute of Mining and Metallurgy, and the International Association of Hydrogeologists. Mr Jeuken has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Jeuken consents to the inclusion in this presentation of the matters based on his information in the form and context in which it appears*

*The information in this presentation that relates to Rum Jungle Resources' projects and future work, comments on the resources estimates and economic potential of the estimated resources is based on information compiled by Mr David Muller, who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Muller is Managing Director of Rum Jungle Resources and an employee of it. Mr Muller has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity to 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". Mr Muller consents to the inclusion in this presentation of the matters based on his information in the form and context in which it appears.*

*The views expressed in this presentation contain information that has been derived from publicly available sources that have not been independently verified. No representation or warranty is made as to the accuracy, completeness or reliability of the information.*

# Contents



- Introduction Rum Jungle Resources Ltd
- Fertiliser mineral fundamentals
- Barrow Creek and Arganara Phosphate overview
- Karinga Creek Potash overview
- Conclusion



# Board and Management

## Non-Executive Chairman – Mr Robert Annells, CPA, FFin

- A former member of the ASX with over 40 years experience in the securities industry, and as a qualified accountant. Mr Annells has been involved in the provision of corporate and investment advice to business and the resource industry and has served on the Rum Jungle Resources Board since 2006. He is currently the Chairman of Lakes Oil NL and Greenearth Energy Limited

## Managing Director – Mr David Muller, BSc, MSc, MBA, FAusIMM

- Over 40 years' experience in the Australian exploration and mining industries. Mr Muller has been involved in a number of successful exploration programs, the financing and restructuring of junior mining companies and he oversaw as Managing Director the floating of Samantha Mines, Samson Exploration and Cape Range Oil and subsequently served as Chairman of all 3 companies. He subsequently listed Julia Mines which was in full gold production by 1987.

## Non-Executive Director – Mr Jeff Landels, BSc (Hons)

- Over 30 years of operational leadership experience in the fertiliser and pulp and paper industries in Australia and New Zealand. Mr Landels was the General Manager of the (then) Western Mining Corporation's fertiliser operations at Phosphate Hill. He has also been the Group General Manager for PaperlinX at its Gippsland operation and General Manager of AMCOR's Maryvale operations.

## Executive Director – Mr Chris Tziolis, BSc, MA, MBA, MAICD

- Over 20 years of operational, strategic and commercial leadership experience in various industries both in Australia and overseas. Mr Tziolis had previously held senior management roles at Rio Tinto in the coal and uranium businesses, was a consultant with McKinsey and Company primarily serving the global mining industry in strategy and operational performance improvement projects and commenced his career as an operations officer in the Royal Australian Navy.

# Rum Jungle Resources – Strategic Overview



- ***RJR's strategic intent is to find, develop and operate phosphate and potash fertiliser minerals projects, located in proximity to existing transport infrastructure, with a geographical focus in the Northern Territory, Australia.***
  - ✓ An Australian company with both phosphate and potash resources that are both essential for efficient agriculture
  - ✓ Strategically located to leverage growing demand for fertilisers in Asia and Australia. Opportunity for regional fertiliser producers to diversify supply
  - ✓ Potential to create a significant fertiliser minerals business in the NT enabling regional economic development and employment opportunities for local indigenous communities and population centres of Alice Springs and Tennant Creek
  - ✓ Institutional shareholder base with a demonstrated history of support
  - ✓ Track record of achieving exploration and project development milestones



# Corporate overview

ASX Code

**RUM**

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Market Cap	<b>A\$42m<sup>^</sup></b>
Shares on Issue	<b>381 million</b>
52 week price range	<b>A\$0.30 – A\$0.11</b>
<b>Current</b>	<b>A\$0.12</b>

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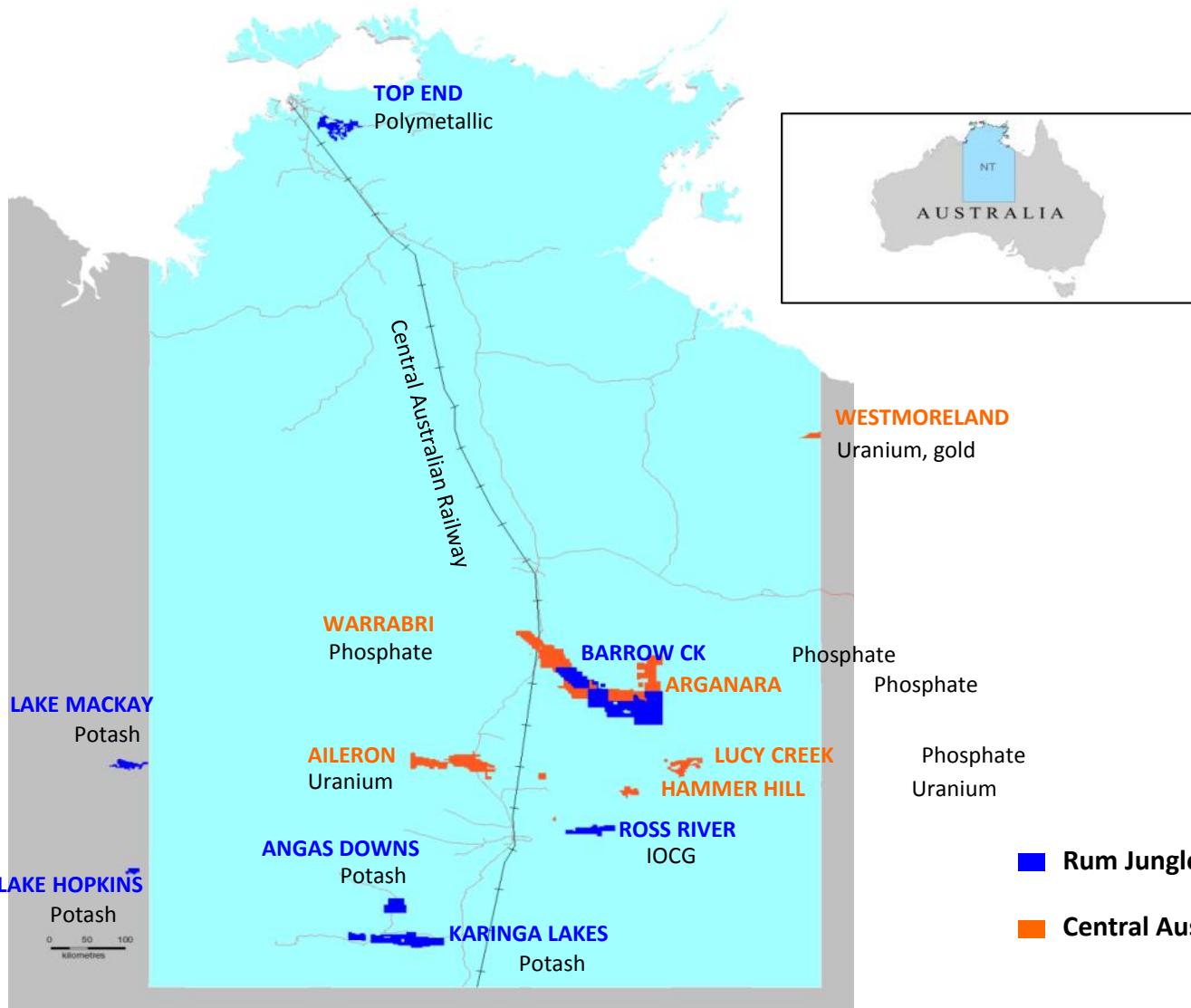
## MAJOR SHAREHOLDERS

Washington H Soul Pattinson & Company Ltd	<b>14.37%</b>
<b>Regal Funds Management</b>	<b>8.0%</b>
Farjoy Pty Ltd	<b>6.5%</b>
Lion Selection Group Ltd	<b>4.7%</b>
Acorn Investments	<b>2.5%</b>

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<sup>^</sup> As at close of trade on 10 March 2014

# Assets strategically located in close proximity to roads and the Central Australian Railway



# Key achievements in the last 12 months



## Ammaroo Phosphate project

- ✓ Completed 100% take over of Central Australian Phosphate Ltd (CEN) thereby amalgamating Barrow Creek 1 and Arganara phosphate deposits into one (Ammaroo).
- ✓ Engaged Worley Parsons to undertake Pre Feasibility Study
- ✓ Completed an infill drilling program at Ammaroo East
- ✓ Preparation of Notice of Intent (NOI) document
- ✓ MOU signed with Darwin Port Authority

## Karinga Creek Potash project

- ✓ Completed an infill drilling program and laboratory test work program
- ✓ Defined a Brine Resource of 8.36 million tonnes of sulfate of potash (SOP) at an average aquifer thickness of 17 m
- ✓ Completed in situ field production of potassium salts for beneficiation testing
- ✓ Commenced Pre Feasibility with Chinese know how using CICCC

## Corporate

- ✓ Completed Institutional placement and SPP in Dec/Jan raising \$13.5M
- ✓ Completed an off-market takeover for Central Australian Phosphate Limited acquiring 100%

\* Measured JORC 2004 resource of 136 Mt, Indicated JORC resource of 42 Mt and Inferred JORC resource of 60 Mt at 10% cut off, 14.6% P<sub>2</sub>O<sub>5</sub>

# Contents



- Introduction Rum Jungle Resources Ltd
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- Conclusion

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# PHOSPHATE VS. NO PHOSPHATE



# Global food security is an emerging issue that should underpin the future value of fertiliser minerals



## Four primary drivers of fertiliser demand growth

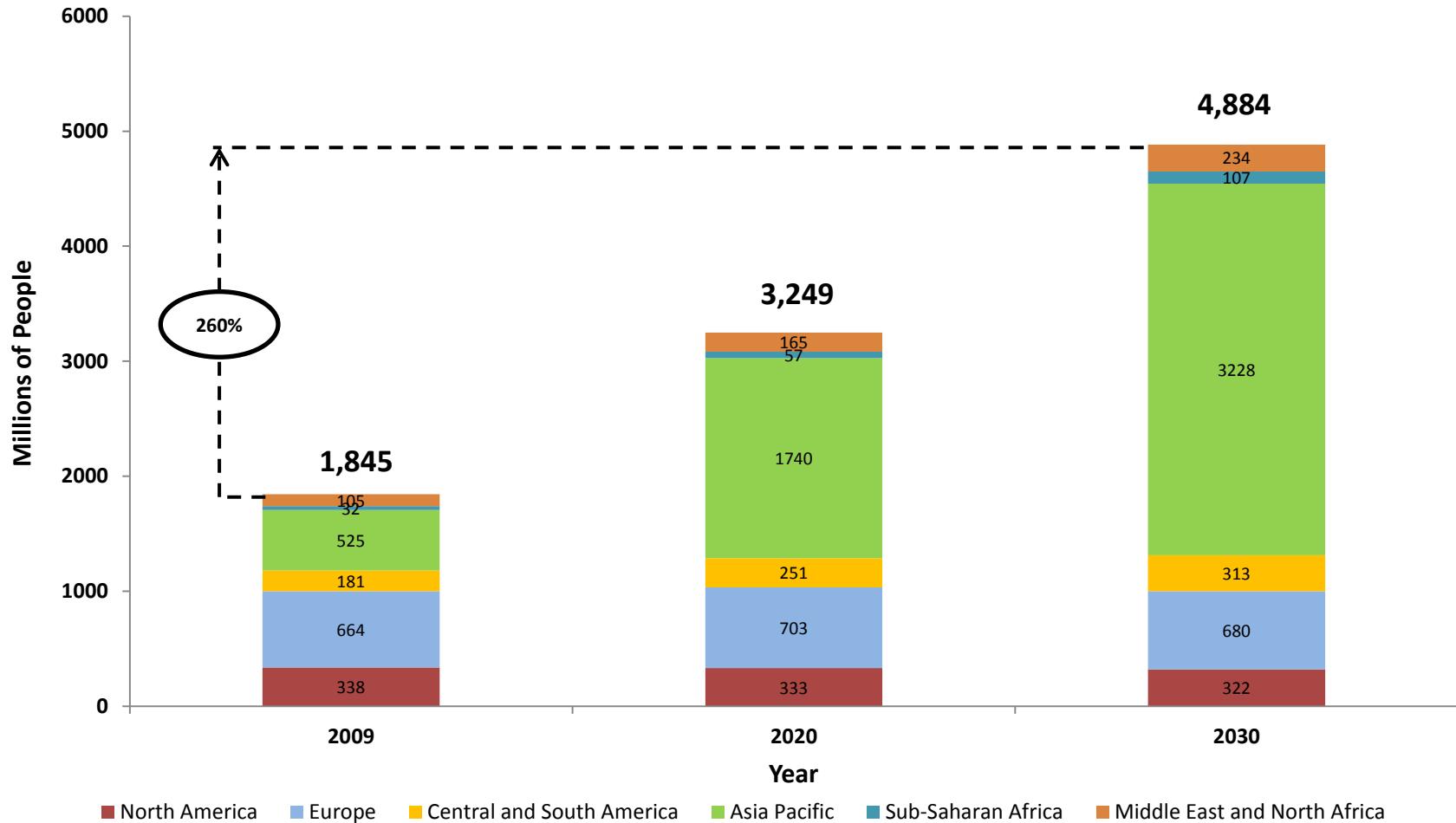
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1. Global population growth and increasing GDPs enabling a growing global middle class population will increase demand for higher value food
2. The change in harvested and other agricultural areas required to meet that demand against a decreasing supply of arable land
3. Crop yield and production
4. Fertiliser application rates

# The rise of the global middle class population, particularly in Asia, will increase demand for food



## Numbers of Global Middle Class\*

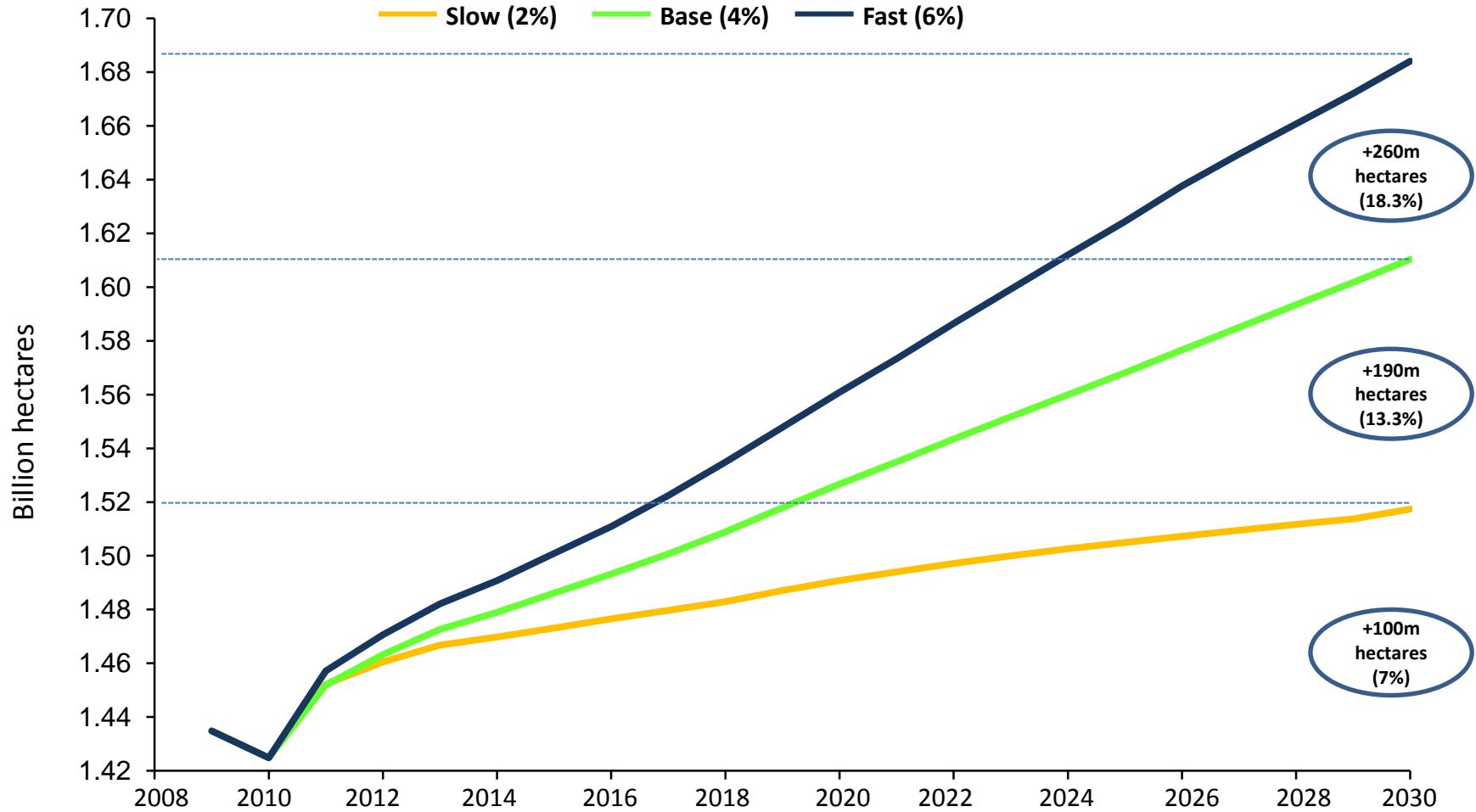


\* Middle Class defined as number of people earning or spending between US\$10 and US\$100 per day at 2005 PPP US\$

# Global GDP growth translates to pressure to expand harvested areas



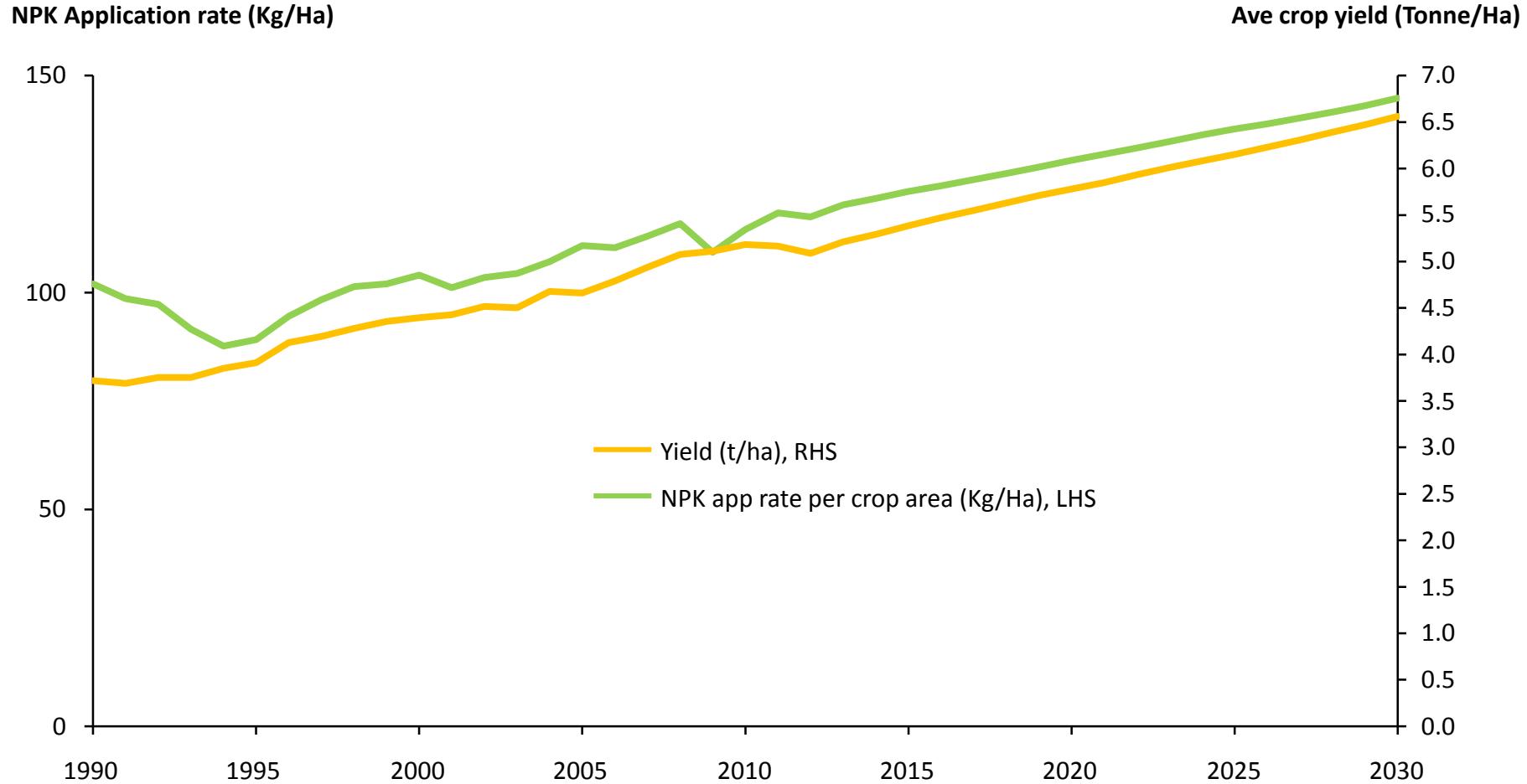
Harvested area growth under different global GDP growth scenarios



# Application rates are expected to increase in line with the necessity for increasing crop yields



Comparison of application rates and crop yields



# Demand for Phosphate and Potash is forecast to grow significantly between 2010 and 2030



Forecast demand for Phosphate and Potash to 2030



# Contents



- Introduction Rum Jungle Resources Ltd
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- Conclusion

# Phosphate project overview

Flag ship project is the combined Barrow Creek 1 and Arganara resources



Phosphate  
resource of  
global scale

- Off market takeover of Central Australian Phosphate (CEN) now completed
- Now combining RJR's Barrow Creek 1 and CEN's adjacent Arganara into a single development called the Ammaroo Phosphate Project
- Combined Measured, Indicated and Inferred Resource approximately 550 million tonnes\* at an average grade of approx. 15% at a cut off of 10% P<sub>2</sub>O<sub>5</sub>. Down strike exploration upside potential for a 1 billion tonne resource
- Resource is shallow, with low strip ratios and appears to be free digging. Potential for multiple decades of production

Strategically  
located

- Approximately 90km to the Central Australian Railway. Of all undeveloped Georgina Basin phosphate deposits, this is the closest to existing rail infrastructure
- Enables railing of product north to port of Darwin or south to southern Australian markets
- Darwin strategically located to provide shipping advantage to Asia over North African suppliers
- Gas pipeline runs parallel to railway and Stuart Highway. Significant ground water resources in the region.

Achievement  
of  
development  
milestones

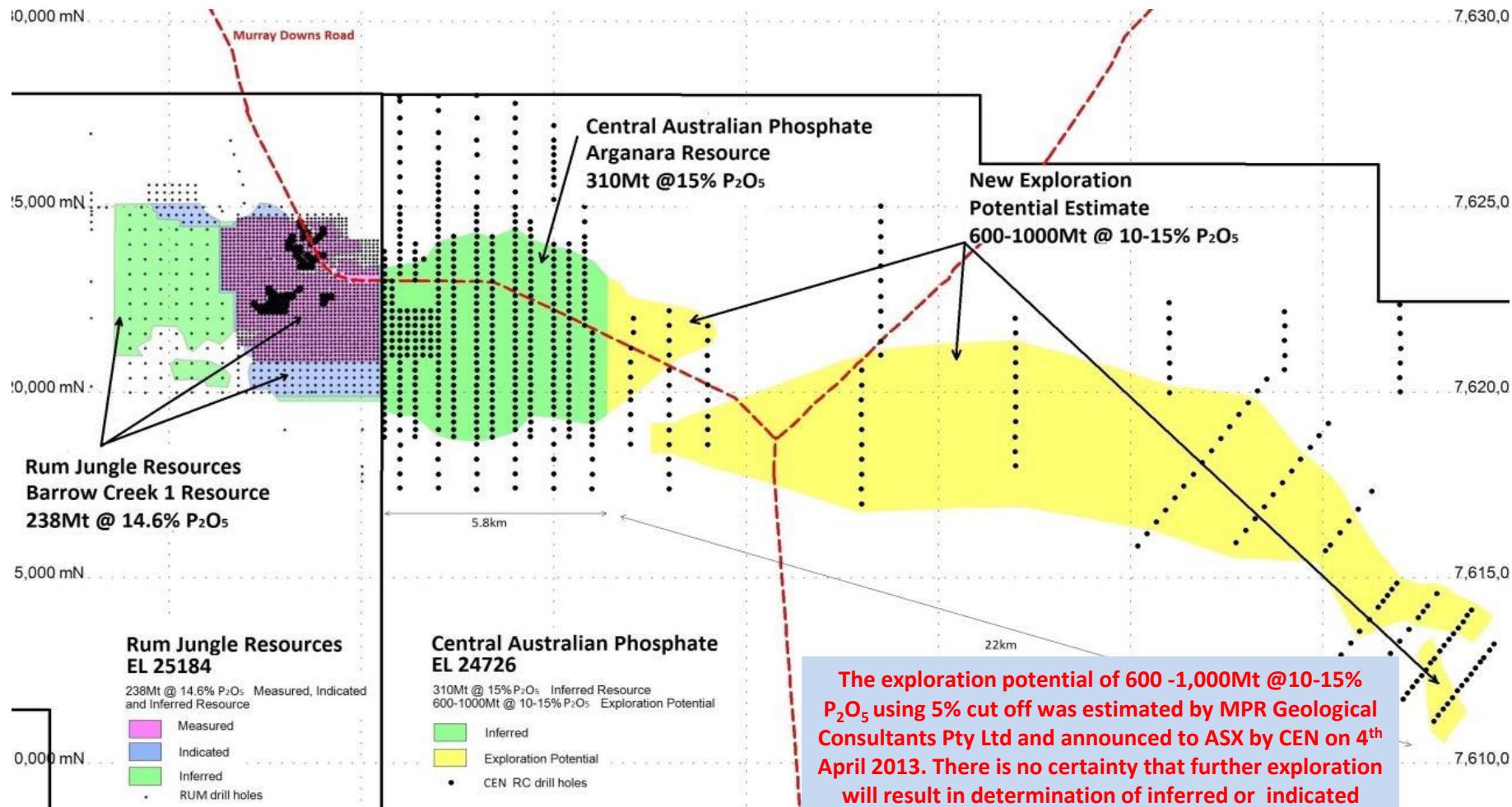
- Scoping study completed in April 2013. Pre-feasibility commenced August 2013. WorleyParsons engaged as study manager
- Environmental approvals process to commence November 2013 with submission of notice of intent (NOI)
- Negotiation of native title agreement and minerals lease progressing

\* Barrow Creek 1 Measured JORC resource of 136 Mt, Indicated JORC resource of 42 Mt and Inferred JORC resource of 60 Mt at 10% cut off, 14.6% P<sub>2</sub>O<sub>5</sub>. Arganara Inferred JORC resource of 310 Mt at 10% cutoff, 15% P<sub>2</sub>O<sub>5</sub>.

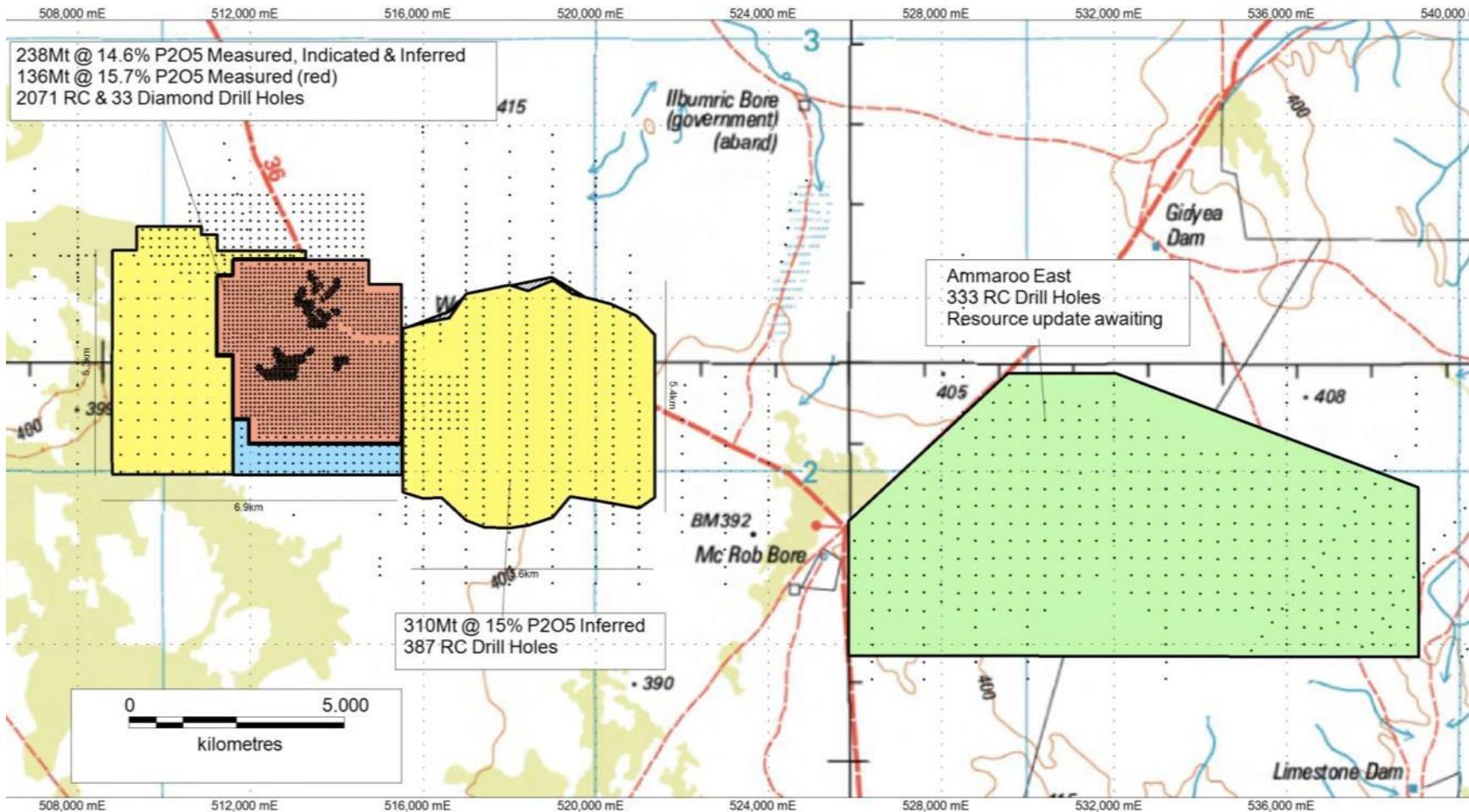
# Rum Jungle Resources completing an off market takeover of Central Australian Phosphate



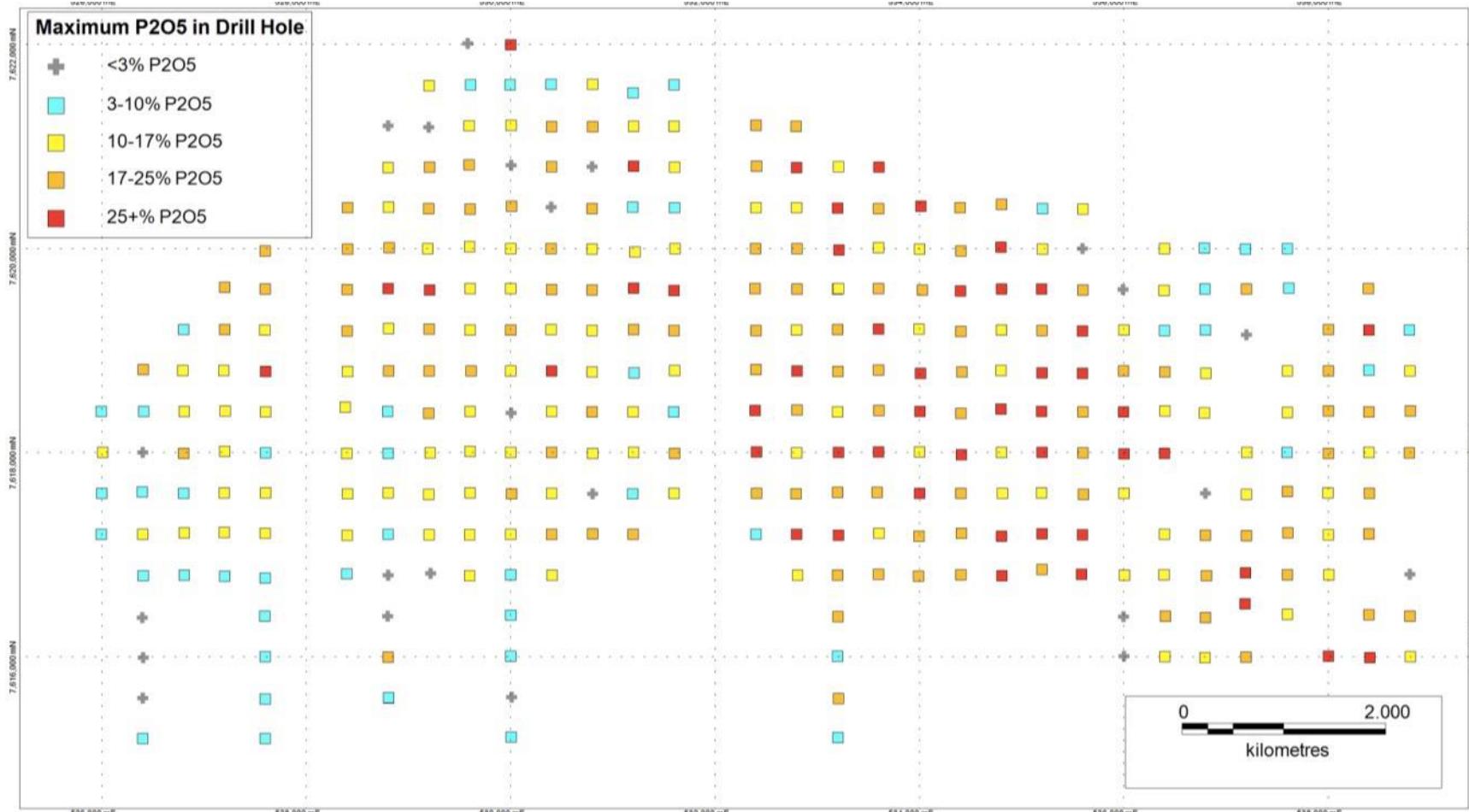
Intention is to combine Barrow Creek and Arganara into a single development



# AMMAROO TOTAL RESOURCE



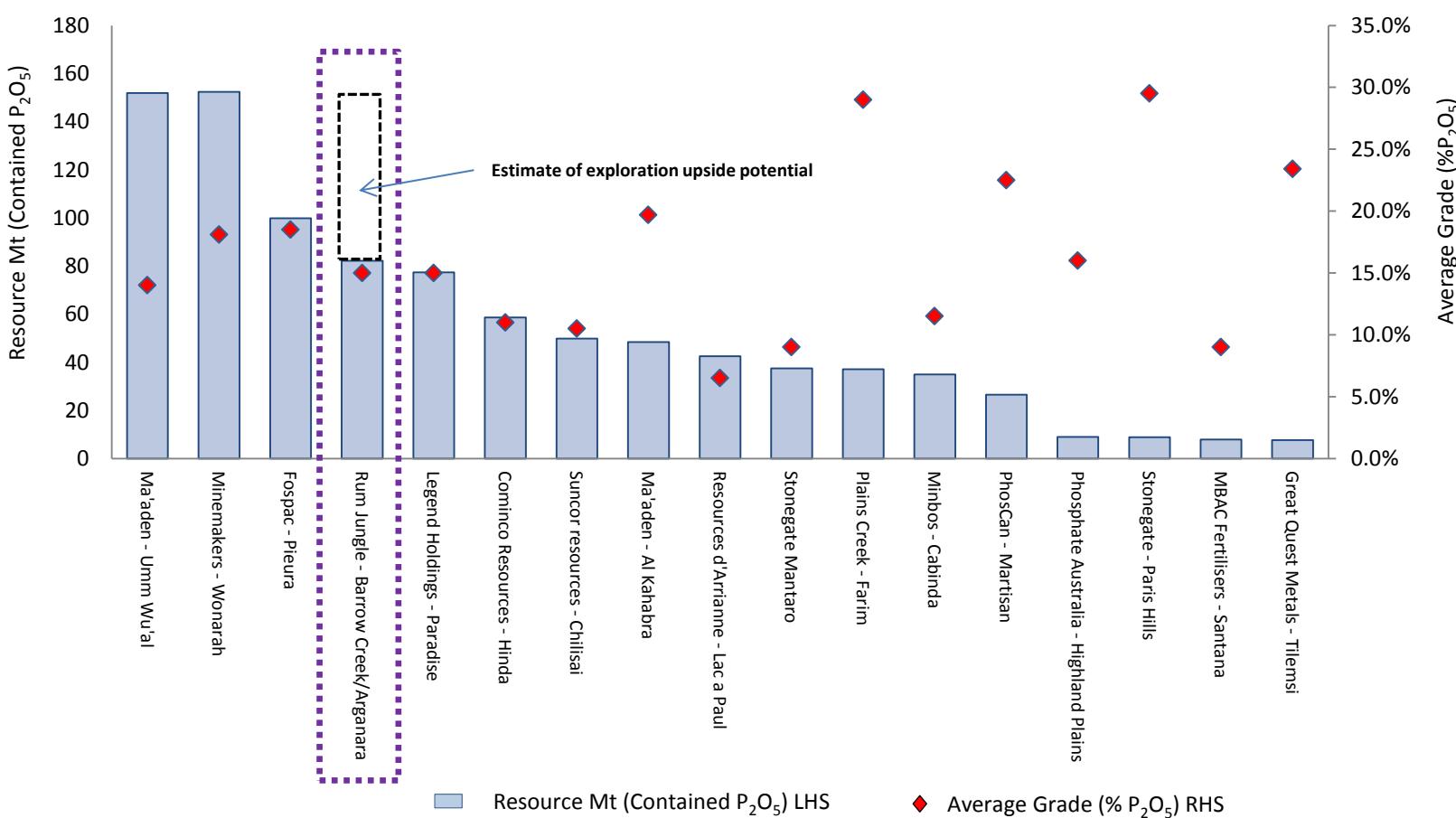
# EAST AMMAROO DRILL RESULTS



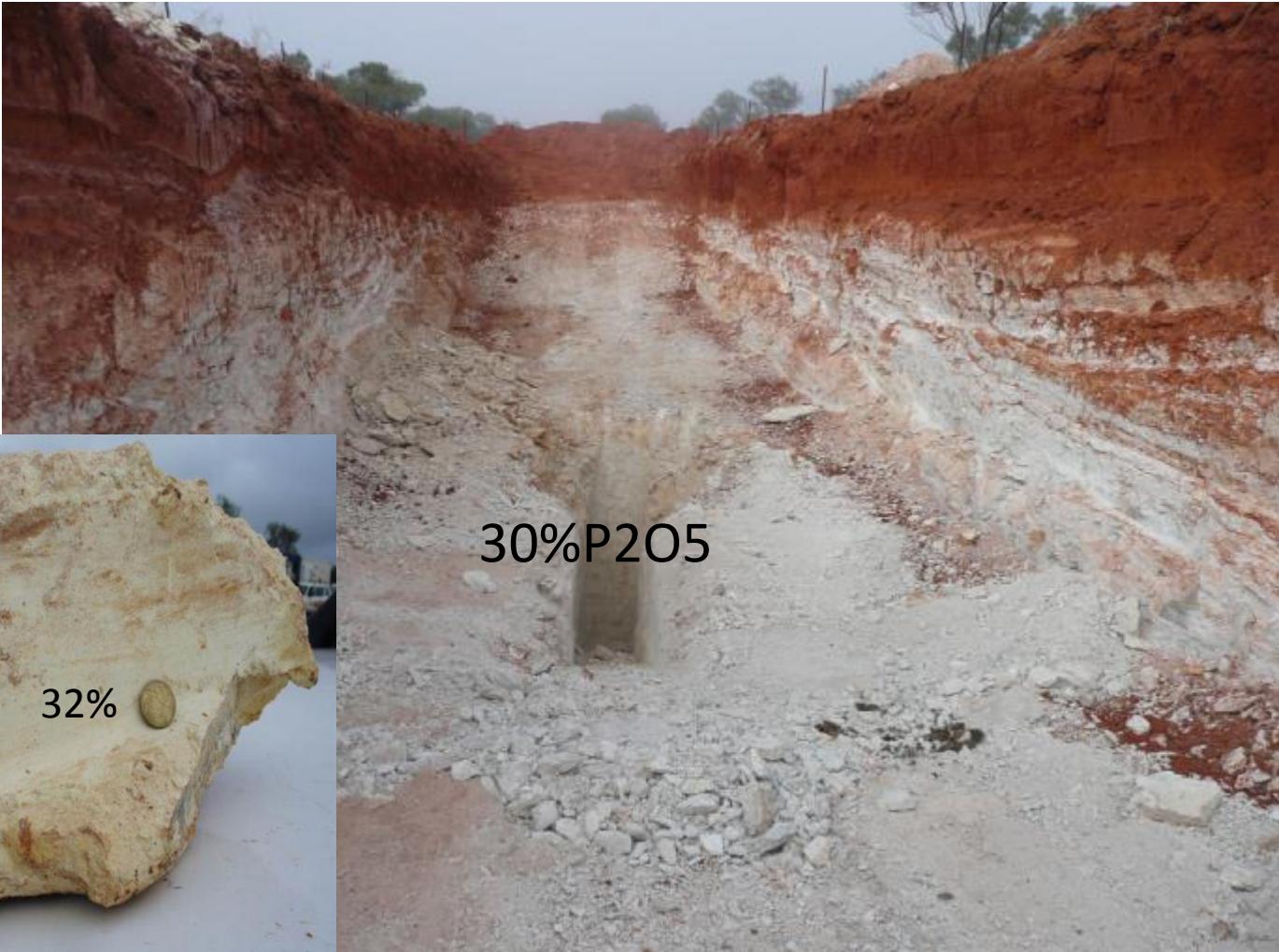
# Comparison of selected undeveloped land based phosphate resources



In comparison, the combined Barrow Creek and Arganara resource is potentially of global scale



# The Barrow Creek 1 Resource is relatively shallow and should enable free digging of run of mine ore



Compare with underground mining 1  
metre seams in Hubei Province China

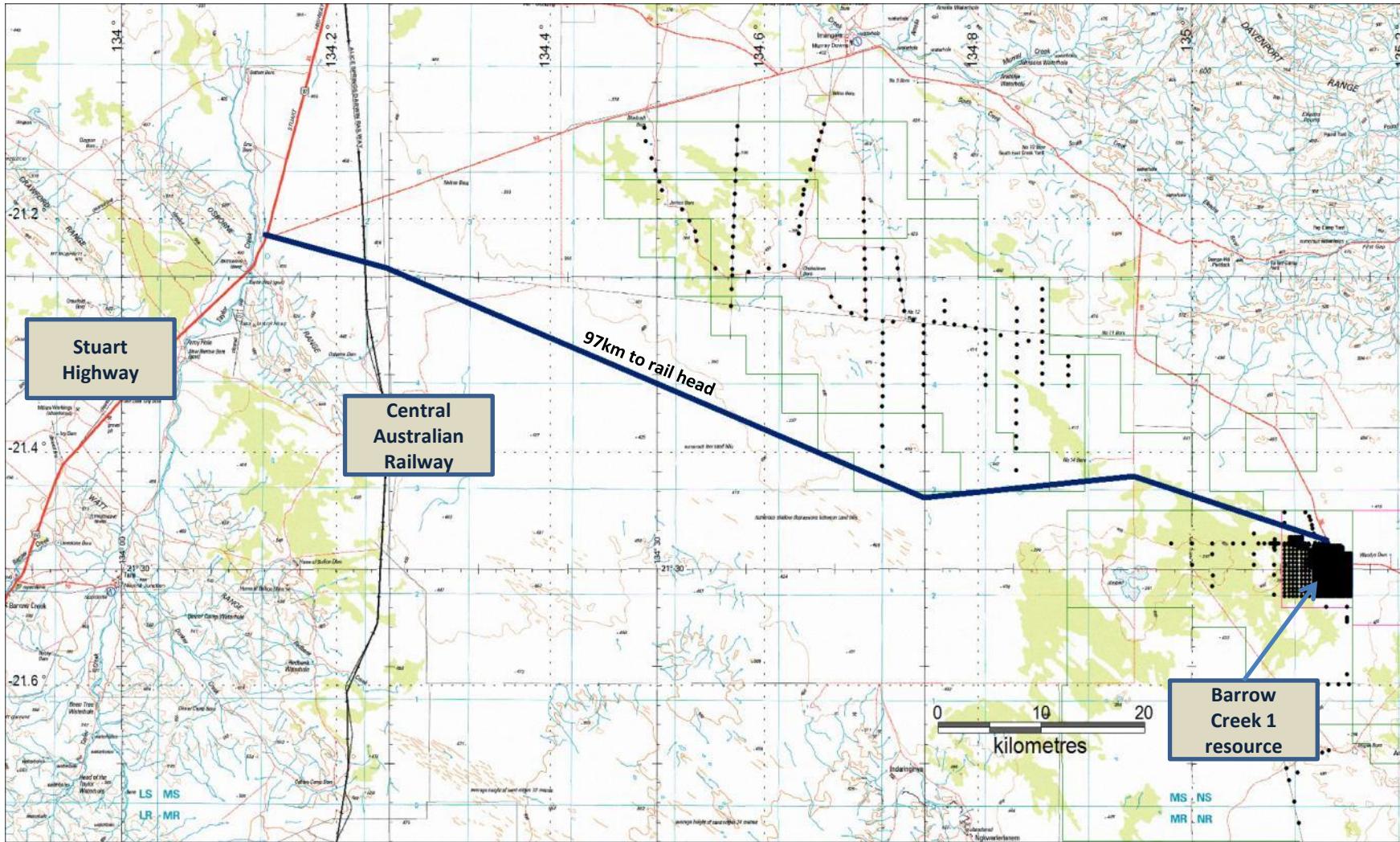


WOODY DAM IS A LARGE DAM WITHIN PHOSPHATE ROCK IN THE MIDDLE OF THE ARGANARA RESOURCE

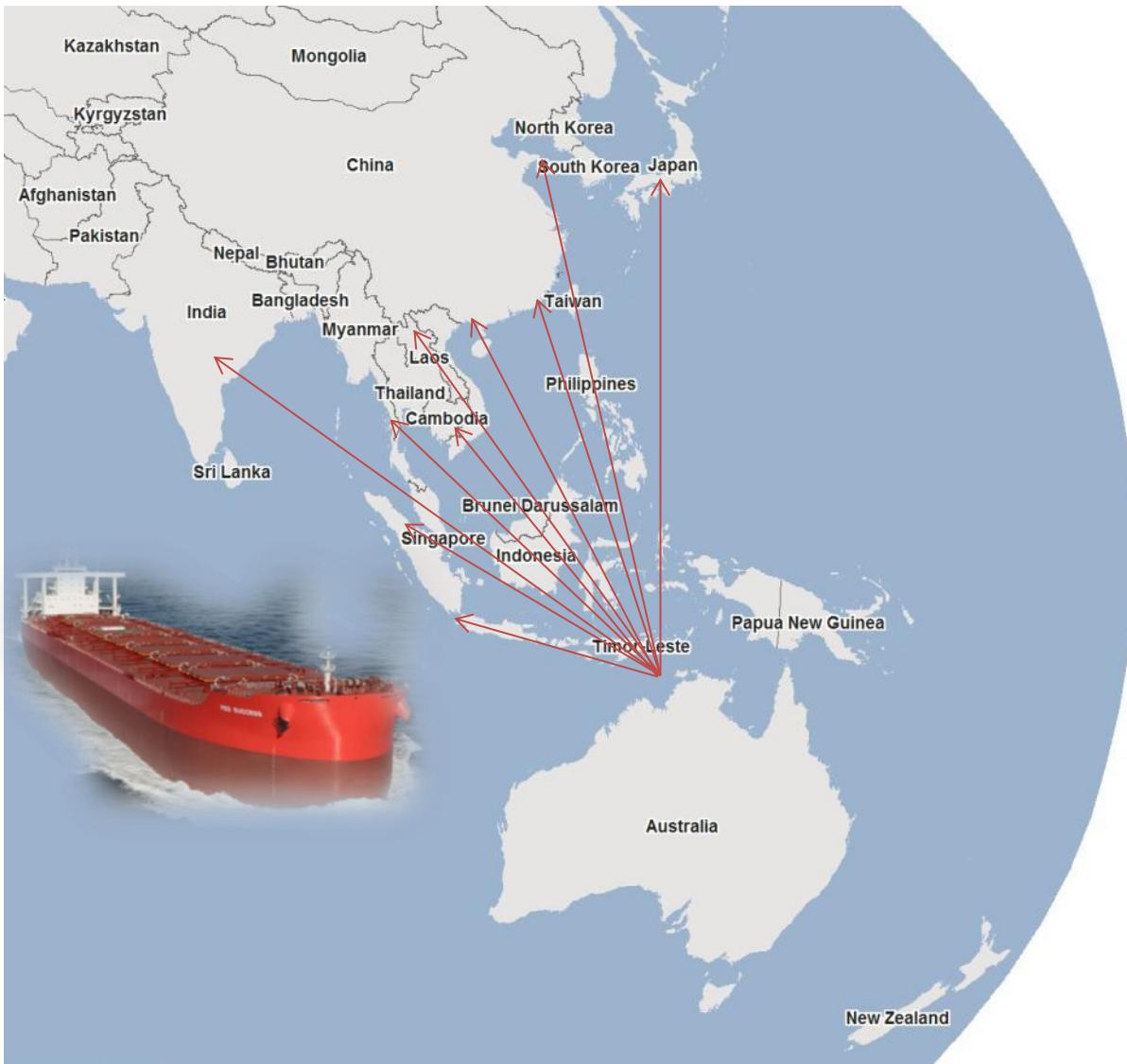
ARGANARA 15%  $P_2O_5$  AT SURFACE



# Proposed 97 kilometre transport corridor from mine site to rail head



# Darwin is well located to service Asian customers and has a significant shipping cost advantage



Destination Port	Nautical Sea Miles from Darwin	Nautical Sea Miles from Safi (Morocco)
Calcutta	3532	6915
Bangkok	2612	8069
Ho Chi Minh	2327	7884
Sandakan	1444	8278
Jakarta	1532	7498
Tokyo	3033	10142
Manila	1807	8579
Wellington	3545	10663
Adelaide	3136	9723

# The Barrow Creek 1 Scoping Study was completed in April 2013



- ✓ 3 **options** were identified as potentially viable to develop the Barrow Creek 1 project as a standalone project
  - Rock export 1 - Mechanically beneficiated ore start up followed by full flotation beneficiation
  - Rock Export 2 – Commence with full flotation beneficiation
  - Phosphoric acid – Wet acid production of merchant grade phosphoric acid
- ✓ Results warranted the commencement of a pre-feasibility study

The Barrow Creek 1 Scoping Study was announced to ASX by RUM on 22<sup>nd</sup> April 2013. The company has not provided assumptions in accordance with ASX listing Rules 5.16 and 5.17 and accordingly slide 27 is retracted.

# Summary of scoping study outcomes

Three production and associated transport options identified as potentially economically and technically viable for the development of Barrow Creek 1 as a standalone operation with an operating life in excess of 25 years:

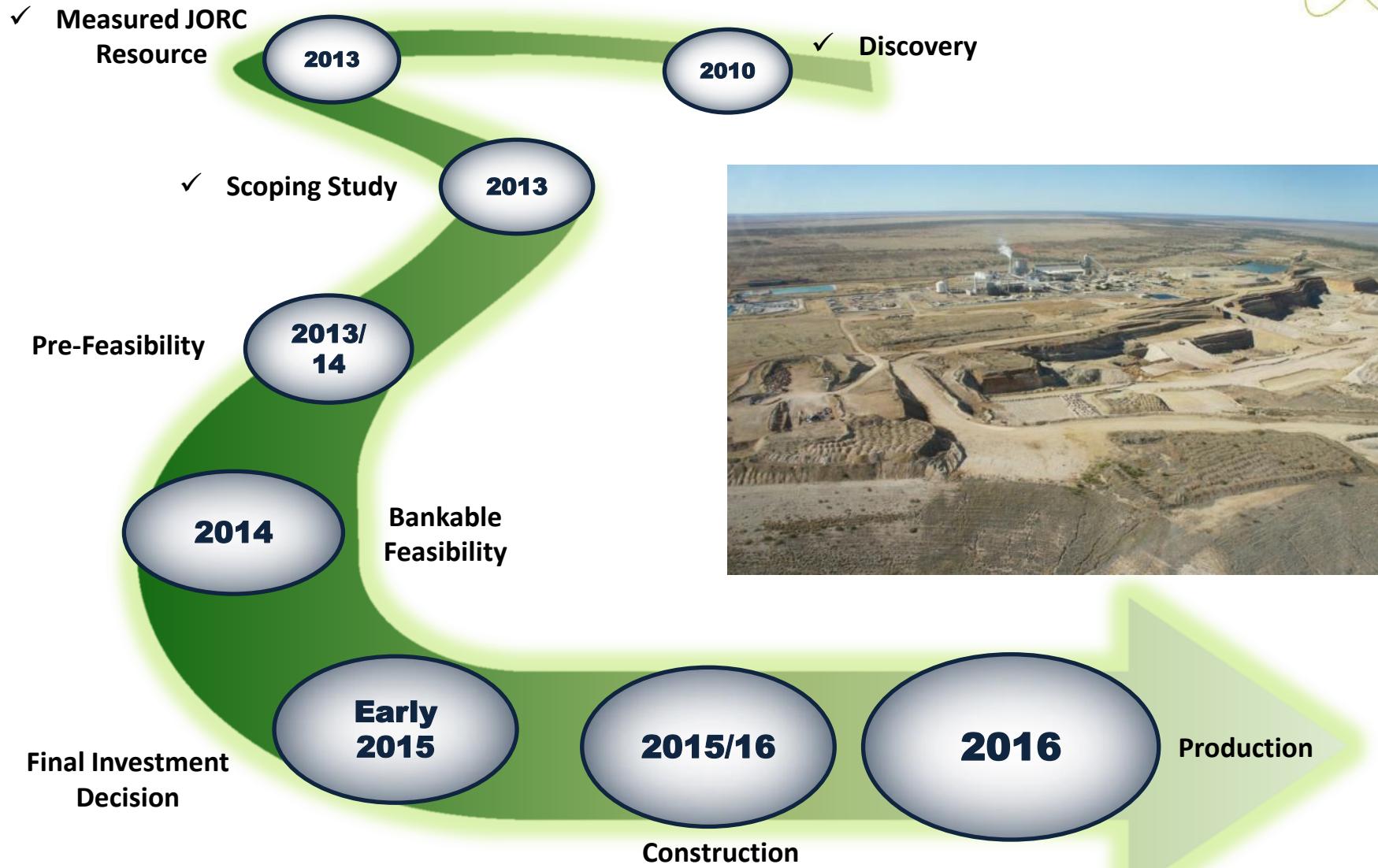
- **Option 1 - Rock Export** - MBO start-up (up to 4 years) followed by beneficiation through floatation. MBO transported to rail head by road and beneficiated rock transported by slurry pipeline to rail head
- **Option 2 - Rock Export** - Beneficiation through floatation from start-up. Beneficiated rock transported by slurry pipeline to rail head
- **Option 3 - Phosphoric Acid Export** – Production of Merchant Grade Phosphoric Acid through either a ‘Wet Process’ or a ‘Thermal Process’. Acid transported to railhead by pipeline. Could underpin further investment in MAP/DAP production capacity in the NT

# Key focus areas for Pre-Feasibility



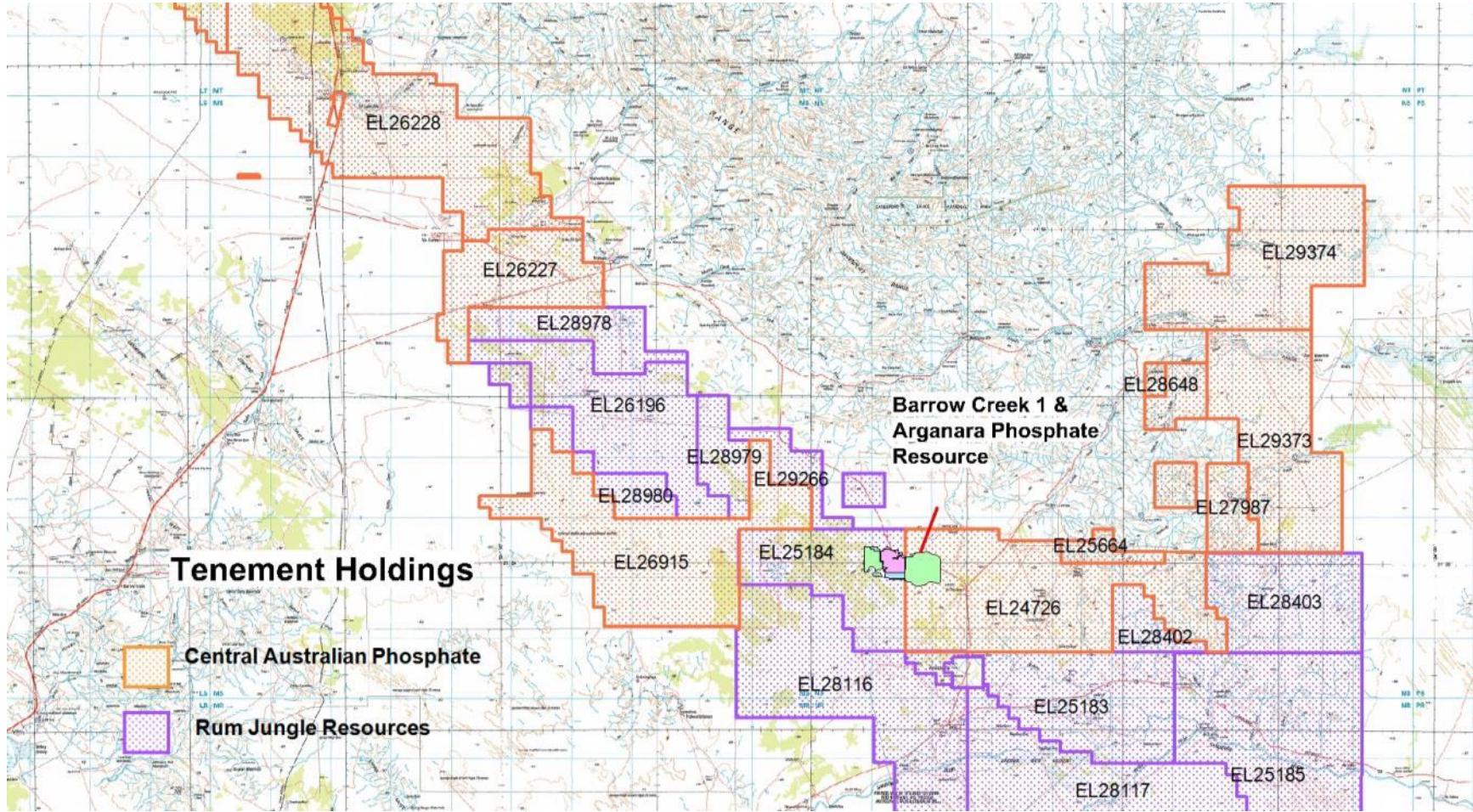
- Additional metallurgical test work and process flow sheet development to provide greater process certainty, improve recoveries and ensure marketable product qualities can be met on a commercial scale
- Engagement with global and Australian fertiliser producers to clearly define a market entry strategy, fully understand the value in use of potential products and attract off take partnerships
- Further development of the mine plan, optimisation of mining method and associated equipment
- Further definition of water requirements and ground water sources
- Optimisation of transport and logistics commercial outcomes with rail operators and the port
- Reduce the uncertainty over CAPEX and OPEX estimates from 35% to 20%
- Complete Native Title Agreement and granting of a minerals lease
- Commence environmental approvals process
- Engagement with potential development partners and financiers

# The Barrow Creek 1 project is progressing toward development



\* Photograph depicts Incitec Pivot's Phosphate Hill's operation in Queensland Australia

# COMBINED TENEMENT HOLDING



# Contents



- Introduction Rum Jungle Resources Ltd
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# Karinga Creek Potash project overview



## Potassium salts resource

- Potash minerals in subsurface brines under dry salt lakes. Ongoing accumulation of potassium salts occurs via groundwater recharge from Central Australian Discharge Zone.
- Upgraded JORC 2012 brine potash resource of 8.36 million tonnes  $K_2SO_4$ .\*
- Located adjacent to the bitumen Lasseter Highway and road access to Central Australian Railway line
- Could be low capital and low operating cost operation as evaporation primary processing route

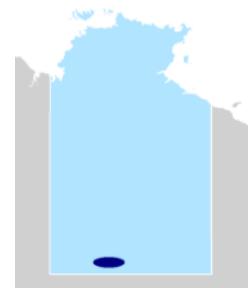
\* This resource estimate was made in accordance with the JORC 2012 and announced to the ASX by RUM on 20<sup>th</sup> and 24<sup>th</sup> February 2014

## Niche potash products

- SOP is different to the muriate of potash (MOP) primarily produced around the world (potassium Chloride)
- Used on crops and soils that react adversely to excessive chloride. Significant markets in SE Asia and all potash used in Australia is imported
- Trades at a significant price premium to MOP
- A number of brine lake operations carried out in US, China and South America

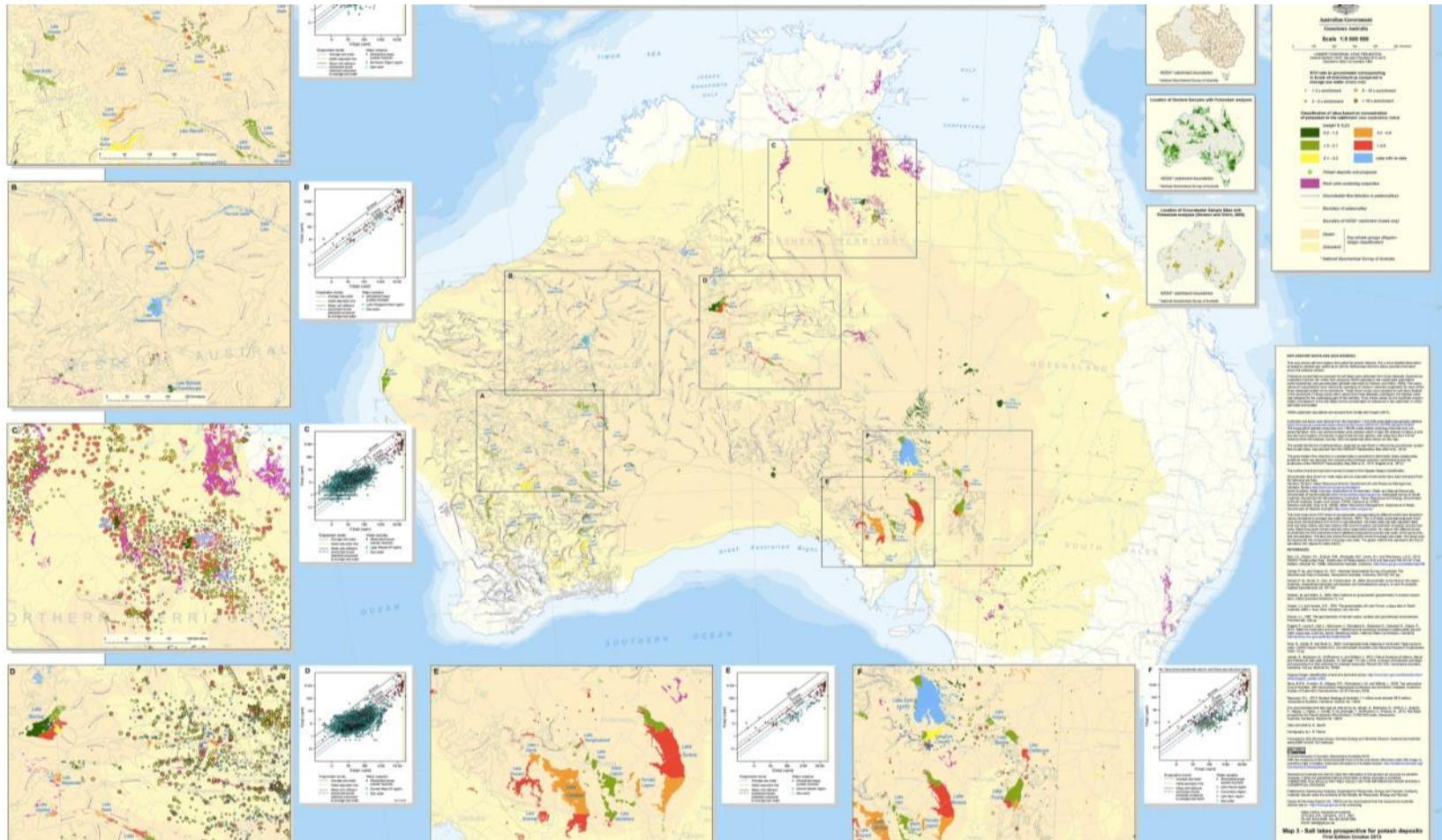
## Project achieving development milestones

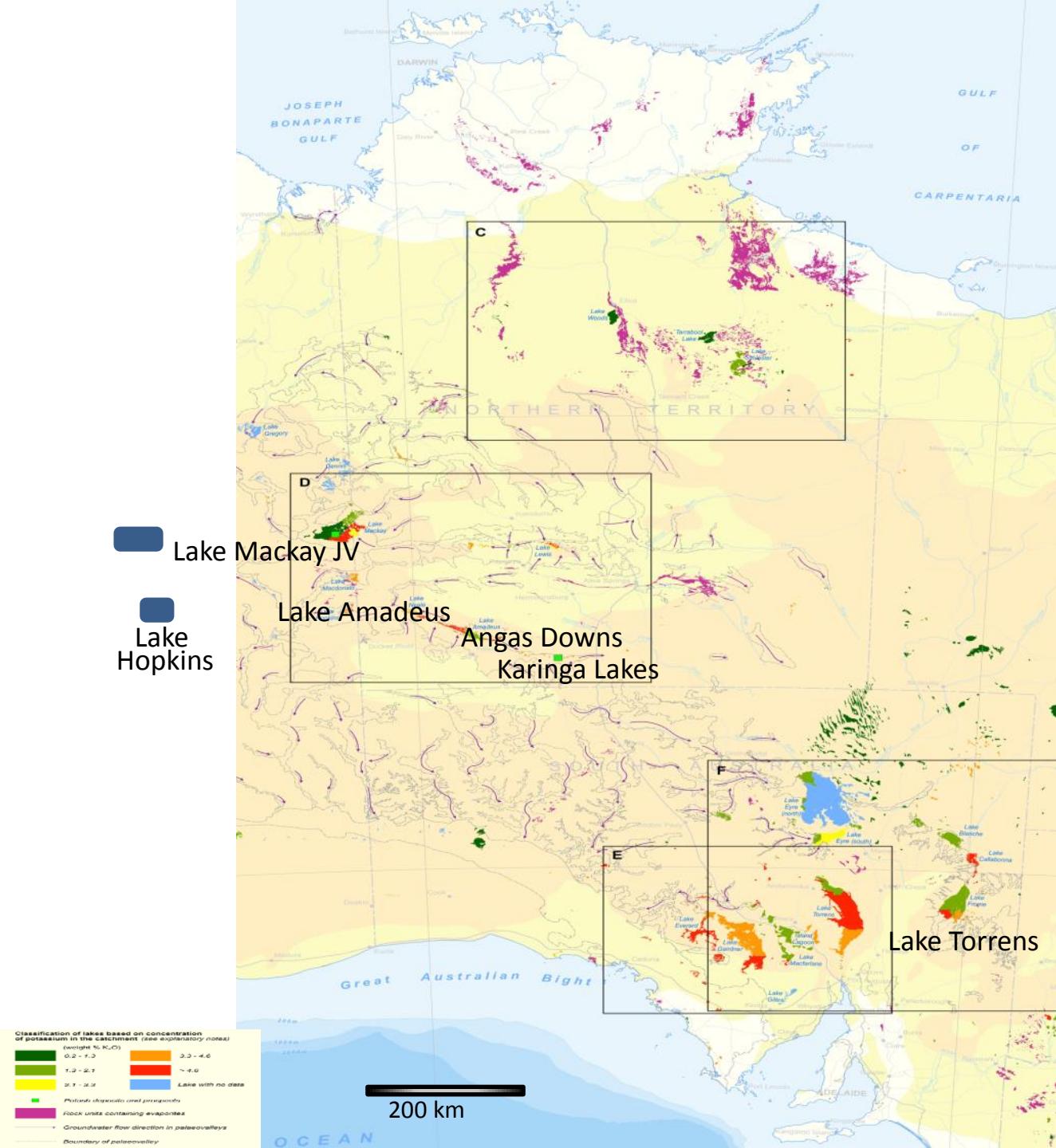
- Initial resource exploration completed and upgraded JORC resource defined
- Flotation testwork on Karinga potash salts about to commence.
- On site evaporation trials in progress and pump testing completed
- M.O.U. signed with C.I.C.C.C. for Pre Feasibility study



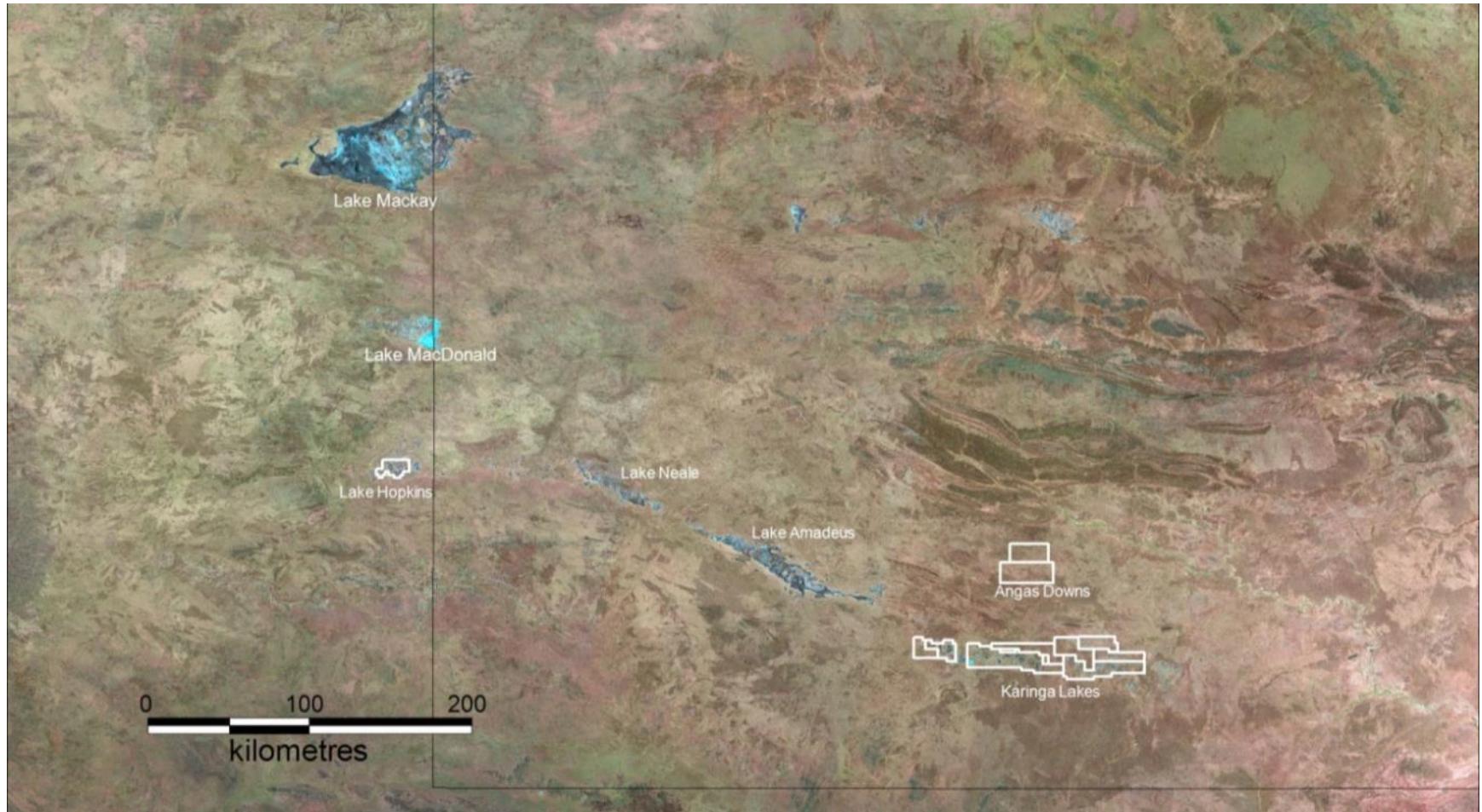
# AUSTRALIAN SALT LAKE POTASH POTENTIAL

Map produced by Geoscience Australia 2013



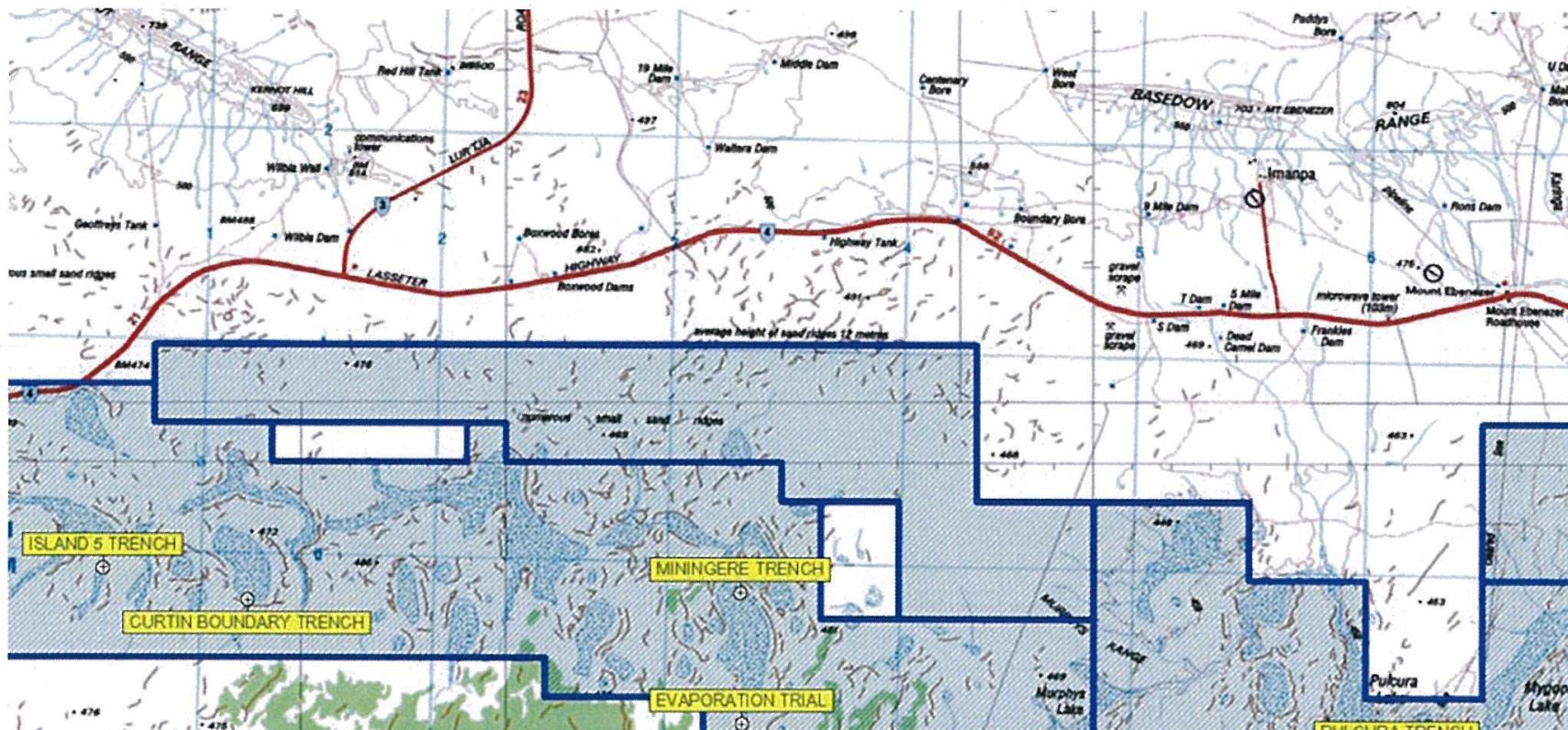


# Lake Mackay 4000 Sq Km

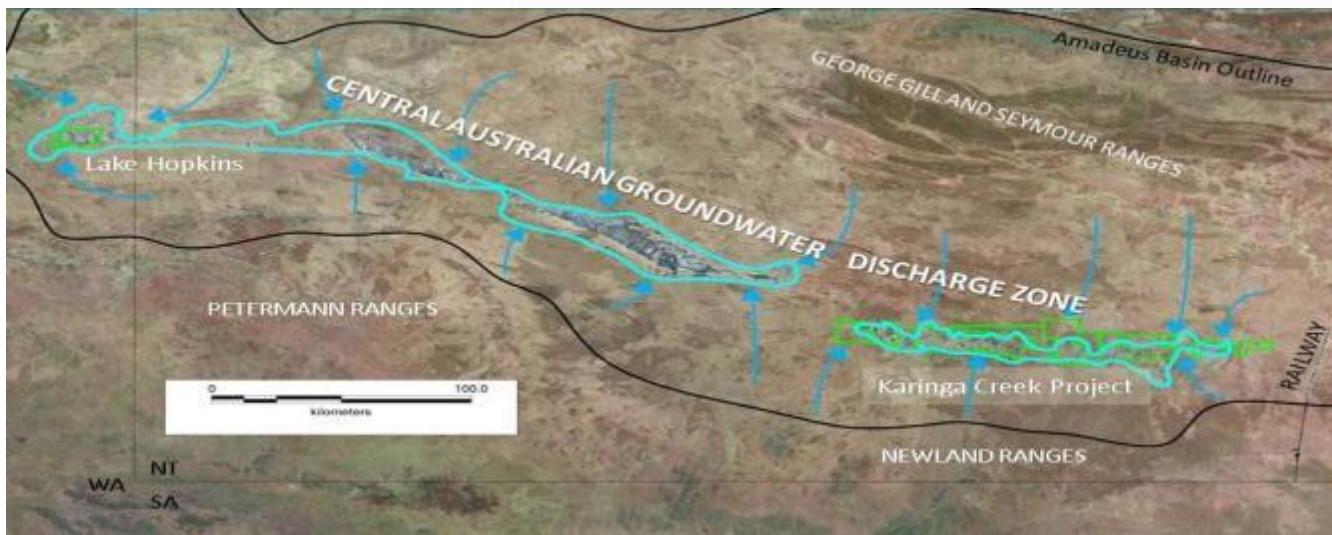
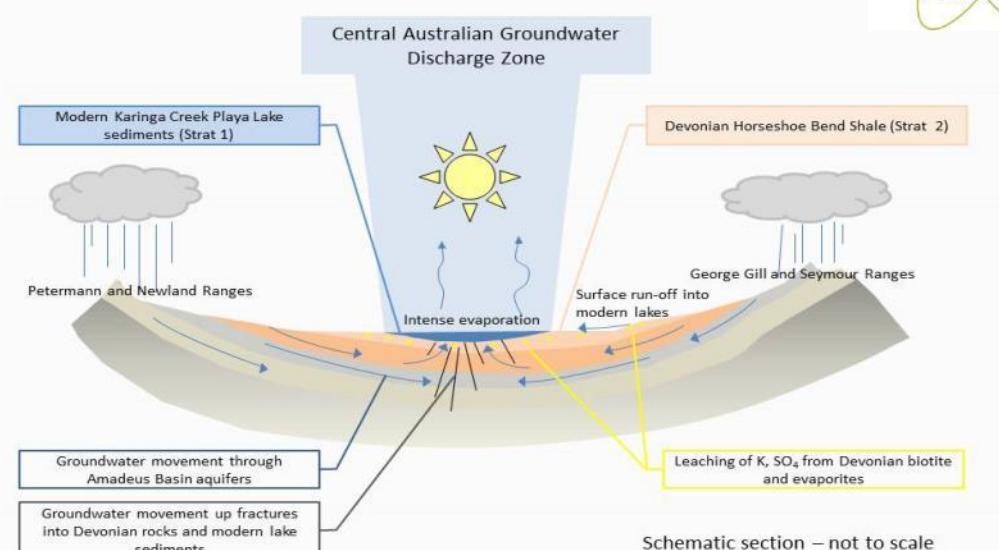


# Karinga Lake Distribution

## 4. SITE DIAGRAM



# Ongoing accumulation of potassium salts occurs via groundwater recharge from Central Australian Discharge Zone



# TRIAL PRODUCTION TRENCH IN SILTSTONE



# Second trench test



# 30 DAYS CONTINUOUS FLOW



# 30 Day Pump Test second lake



# TRIAL SALT PRODUCTION ON SITE PICTURE TAKEN SEPTEMBER



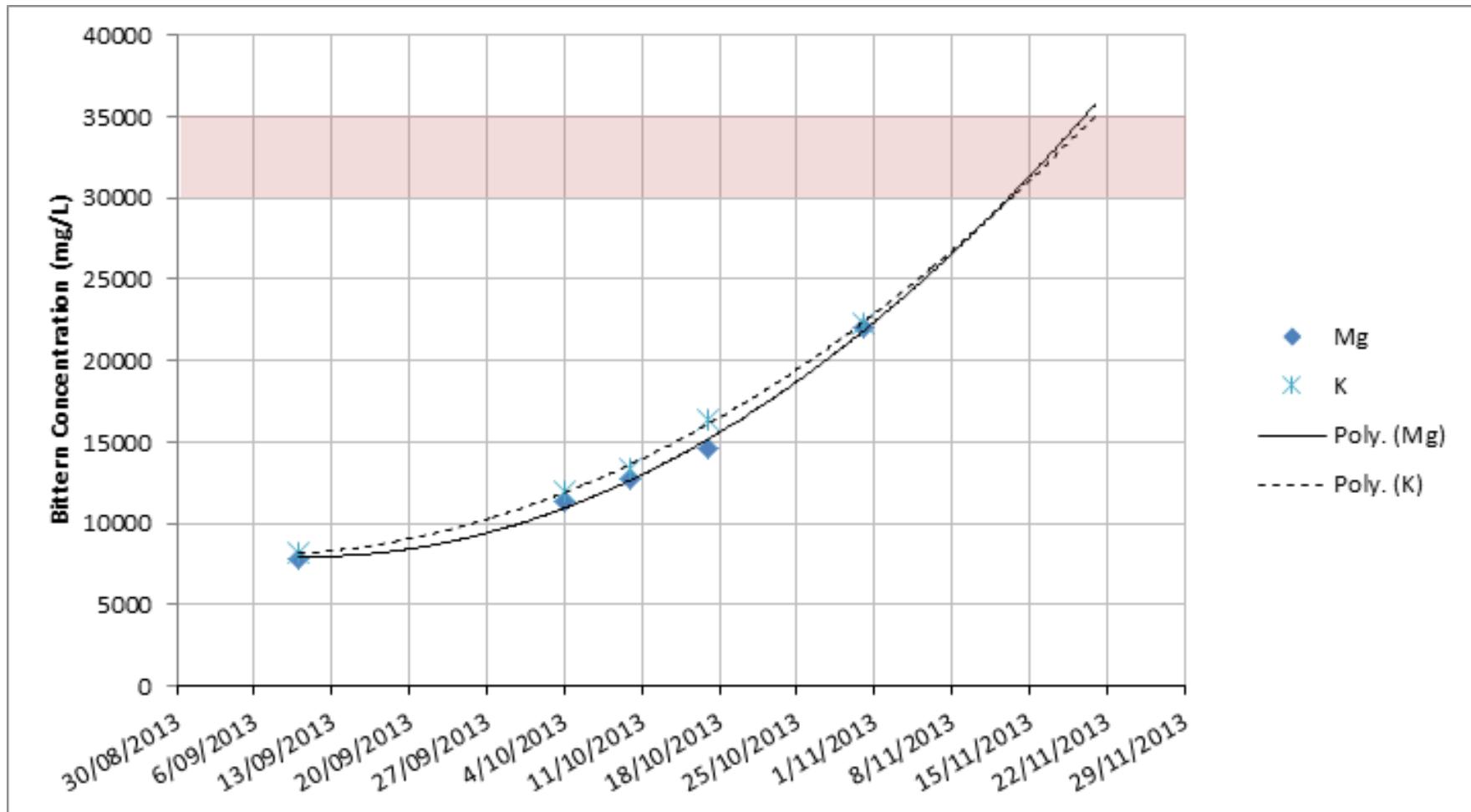
SALT PRECIPITATION INCREASES: picture taken November



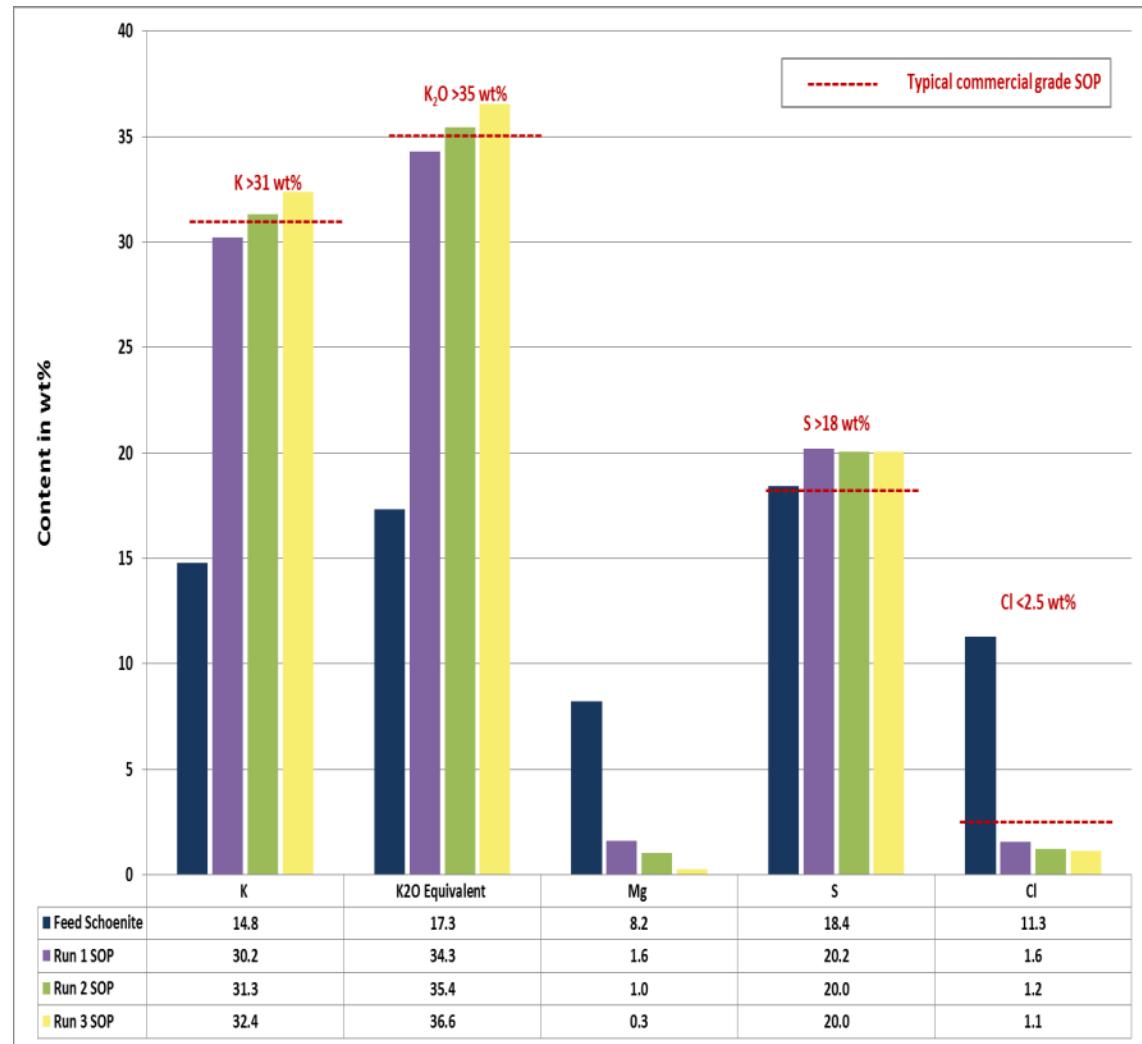


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## BITTERN BECOMES ENRICHED IN POTASSIUM IN FIELD TRIAL



# Schoenite and sulphate of potash have been produced in laboratory scale trials



# A number of operations in the US, China and Chile currently extract potash from salt lake brines



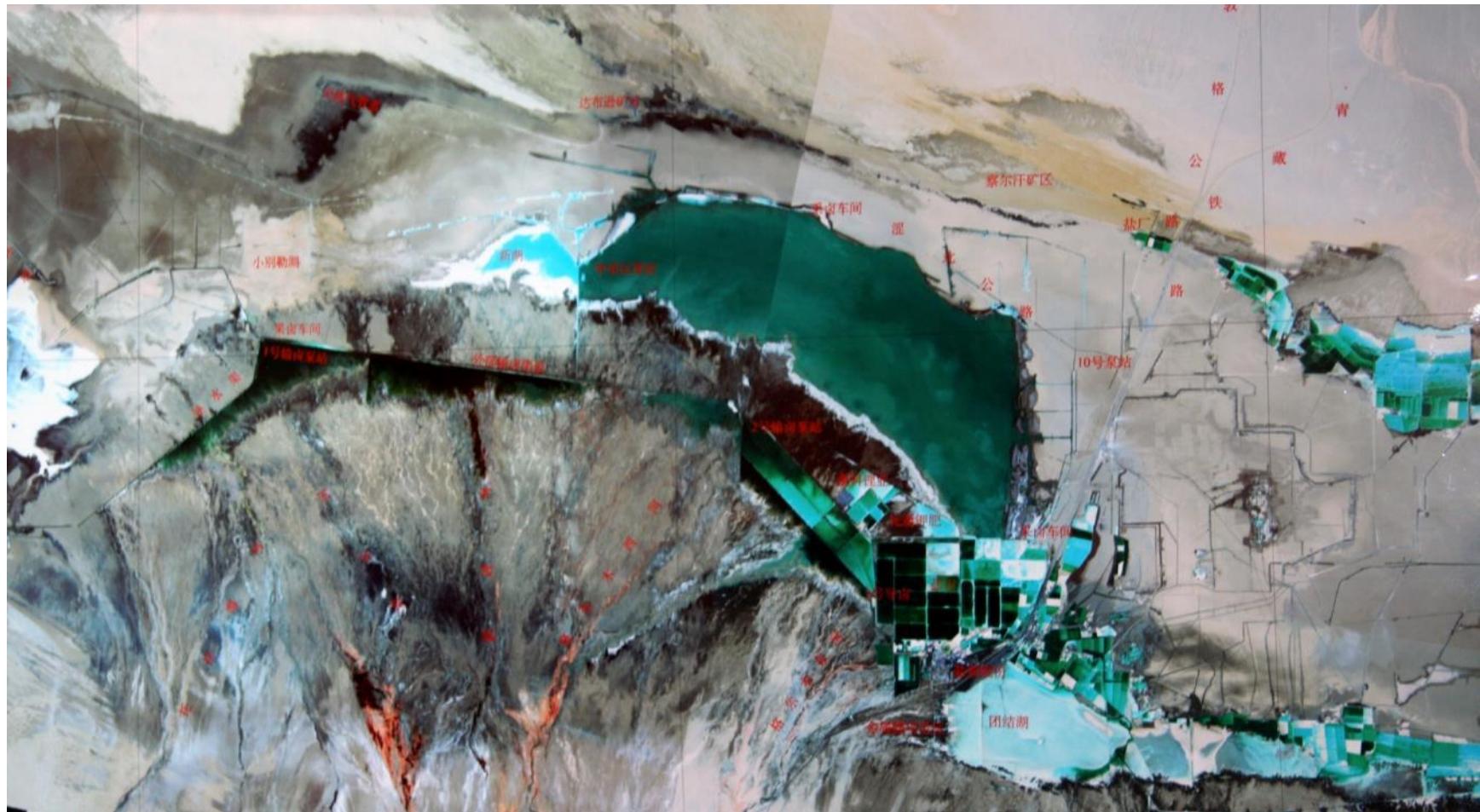
# PEOPLES REPUBLIC OF CHINA



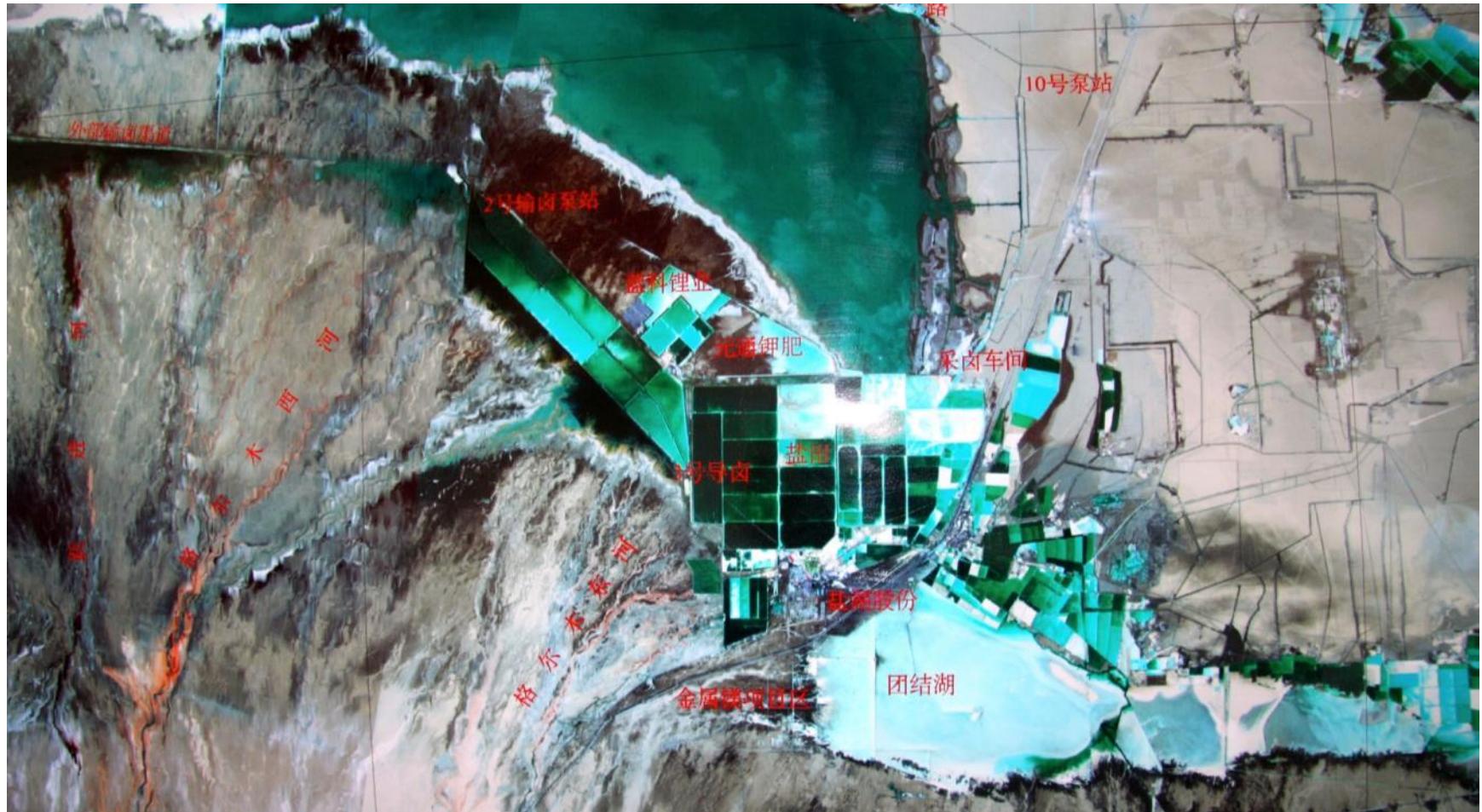
# Recent visit to Chinese salt lakes



# Lake Qarhan Qinghai Province



# Lake Qarhan in Qinghai Province



# Integrated chemical plant Lake Qarhan



# Potash plant Lake Qarhan



# Dredging Lake Qarhan



# Luobupo Potash on Lake Lop Nur

## XINJIANG PROVINCE

今天的岁布汨 Lop Nur today



# Terra Cotta Warriors Xian



# Contents



- Introduction Rum Jungle Resources Ltd
- Fertiliser mineral fundamentals
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- Karinga Creek Potash overview
- Conclusion

# In conclusion there are a number of reasons to invest in Rum Jungle Resources



- ✓ Large JORC phosphate resource
  - The combination of Barrow Creek 1 and Arganara with a combined Measured, Indicated and Inferred resource of approximately 550 million tonnes at an average grade of approximately 15% P<sub>2</sub>O<sub>5</sub> at a cut off of 10% P<sub>2</sub>O<sub>5</sub>, makes it a globally significant phosphate resource
  - Further exploration down strike could lead to a resource in excess of 1 billion tonnes at 15% P<sub>2</sub>O<sub>5</sub>
  - Potential for global fertiliser producer to develop this significant phosphate province to support multiple decades of phosphate fertiliser production
- ✓ Diversification
  - Rum Jungle Resources is the only company in Australia with both a JORC compliant phosphate resource and a JORC compliant potash resource
- ✓ Close to infrastructure and markets
  - Access to major roads and the Central Australian Railway
  - Proximity of Darwin to Asian markets offers a shipping advantage
- ✓ Record of achieving project milestones
  - Completed a Scoping Study on the Phosphate resource in April 2013. Commenced a pre-feasibility study and if appropriate, a bankable feasibility study will be conducted in 2014
- ✓ Well supported
  - Institutional shareholder base with a demonstrated history of support