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Listings Officer  
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**UPDATED PRELIMINARY FEASIBILITY ECONOMIC EVALUATION  
 AMMAROO PHOSPHATE PROJECT**

**ASX ANNOUNCEMENT**

**ASX CODE: RUM**

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The Ammaroo Phosphate Project Preliminary Feasibility Study was completed in September 2014 (ASX announcement 29 September 2014). Completion of the preliminary feasibility study supported the economic and technical potential of the project to be developed as a phosphate rock concentrate export operation or for the production of phosphoric acid or the production of downstream ammonium phosphate fertilisers using proven technologies.

The base case economic evaluations have been recently reassessed to take into account long term forecasts of the Australian dollar's value that are considerably lower than previous forecasts, potential labour and other cost reductions in the Australian capital project and resource industry environment, reductions to forecast costs of diesel and gas associated with significant reductions in global prices for oil going forward and a reassessment of phosphate commodity pricing assumptions based on recent price evolution. This revaluation has led to a significant uplift in the potential value of the Ammaroo Phosphate Project.

*August 2015 Project Valuations Summary*

	Case A – 2 Million tonnes per annum Phosphate Rock concentrate	Case B – 500,000 tonnes per annum Phosphoric Acid (100% P <sub>2</sub> O <sub>5</sub> )	Case C – 1,020,000 tonnes per annum Ammonium Phosphate Fertilisers
<b>Indicative 50% Geared Post Tax NPV @ 8%</b>	<b>A\$M</b> 790	1,280	2,250
<b>Geared Post Tax IRR</b>	% 31	26	27

Indicative NPVs are after tax project NPVs and do not include corporate overhead  
 A\$M: Millions of nominal Australian dollars

The Ammaroo phosphate project remains a global-scale, very long life resource, positioned in proximity to existing transport and gas infrastructure and located in a stable OECD country. Currently the majority of the world's seaborne traded phosphate originates from the Middle East and Northern Africa whereby the long term security of supply remains uncertain under a number of realistic scenarios. Australia currently imports approximately 80% of its phosphate requirements from countries such as Morocco, China, Saudi Arabia and the USA.

Moreover, the production of phosphoric acid and the conversion of that acid to ammonium phosphate fertilisers to supply the southern Australian, Indian and regional Asian markets, could be positioned in the first quartile of the global cost curve for delivery to these markets. The low cost position is underpinned by very low costs of mining and processing as the ore is shallow and free digging and easily converted into a rock concentrate suitable as a local phosphoric acid plant feedstock, relatively low costs of gas for ammonia production and proximity to markets in Asia through Darwin and in southern Australian markets that are located in proximity to the southern terminus of the Central Australian Railway.

The following updated economic evaluation baseline for the project provides a basis for continuing engagement with global and regional fertiliser players with a view of securing the necessary strategic, financial, technical and market partnerships needed to move this Tier 1 project towards development.

**SUMMARY**

The reassessment of the Ammaroo preliminary feasibility study (PFS) baseline economic evaluation was completed on the following existing PFS production scenarios (+/- 25% of capital and operating costs<sup>1</sup>):

- Case A - 2 million tonnes per annum of phosphate rock concentrate (32% P<sub>2</sub>O<sub>5</sub>), beneficiated through flotation for export to India and Asia through the port of Darwin
- Case B - 500,000 tonnes per annum of phosphoric acid (100% P<sub>2</sub>O<sub>5</sub>) production for export to India and Asia through the port of Darwin
- Case C - 1,020,000 tonnes per annum of di-ammonium phosphate (DAP) and mono-ammonium phosphate (MAP) fertiliser production, utilising the phosphoric acid produced at case B above with the addition of ammonia and granulation capacity for distribution north to export markets and south to Australian markets

*Mine Plans*

No adjustment has been made to the original PFS mine plans constructed by Coffey Mining. All original mine plans were based on selective mining from only part of the Measured and Indicated resource at a 10% cut off grade within the total JORC resource that was announced to the ASX on 24 March 2014 and has not changed since. The following table provides details:

	Inventory Tonnes	Target Average Mined Grade	Target Mined Cut-off Grade	Inventory Tonnes as a % of total resource at stated cut-off
Case A (27 year mine plan)	134.3Mt	15% P <sub>2</sub> O <sub>5</sub>	10% P <sub>2</sub> O <sub>5</sub>	11.7%
Case B & C (20 year mine plan)	67.7Mt	18% P <sub>2</sub> O <sub>5</sub>	15% P <sub>2</sub> O <sub>5</sub>	19.5%

The inventory tonnes identified above represent only a small portion of the total resource (1.145 billion tonnes of phosphate ore at an average grade of 14% P<sub>2</sub>O<sub>5</sub> at a cut-off of 10% P<sub>2</sub>O<sub>5</sub> or 348 million tonnes of phosphate ore at an average grade of 18% P<sub>2</sub>O<sub>5</sub> at a cut-off of 15% P<sub>2</sub>O<sub>5</sub>). Accordingly, the Ammaroo resource is potentially a very long life resource and furthermore, with significant regional exploration potential, is the entrée into a significant phosphate province within the Northern Territory.

*Exchange Rate*

A long run \$US/\$A exchange rate of \$0.70 has been applied to the valuation. This is based on the most recent long run forecasts from a suite of Australian and international banks. The September 2014 valuation utilised a long run exchange rate of \$0.80.

*Capital and Operating Costs*

WorleyParsons, who provided study management and discipline expertise the PFS study, was engaged to reassess capital and operating costs on the basis of continued slowdown in Australia’s resources industry and the potential for downward pressure on industry costs. WorleyParsons assessed current pricing of key components using a mix of material/equipment indices and pricing updates from potential suppliers and contractors. Based on this assessment, RUM has identified capital and operating cost reductions of between 1% and 4% for varying categories of capital expenditure and operating costs, mainly associated with labour cost reductions and contractor margins.

Although anecdotal evidence suggests real capital costs in the Australian context may have decreased more significantly over the last 12 months, it should be noted that there is no competitive tension involved in providing PFS level pricing. Accordingly, when the project proceeds to a commercial contracting phase, RUM expects that more significant savings than those garnered through the recent pricing assessment process are possible. The use of second hand or near new equipment and mining fleet could also reduce capital intensity in the future.

Reductions in global oil prices and their associated long term outlook, have enabled reductions in forecasts for diesel and gas prices of approximately 10% in Australian dollar terms for each of the scenarios. Furthermore,

<sup>1</sup> The Ammonia Plant and Granulation Plant associated with Case C have been assessed at a conceptual level of study which is notionally +/- 35%

reductions to the cost of supplying the selected flotation reagents were identified by WorleyParsons and applied to the operating costs model. Conversely, assumptions regarding sulphur prices for Cases B and C have been revised upwards to reflect current sulphur pricing and the fact that sulphur would be purchased in US dollars which makes it more expensive in Australian dollar terms than previously assumed.

#### Commodity Prices

The original PFS valuations utilised forecasts of long term prices for phosphate rock concentrate, phosphoric acid and phosphate fertilisers derived from CRU's Ammaroo Phosphate market study from early 2014. Some adjustments have been made to pricing to reflect the current state of phosphate fertilisers globally. Current prices for rock, phosphoric acid and DAP/MAP plus CRU's view of netback due to shipping advantage from Darwin to certain markets over major suppliers and value in use have been utilised in the valuation. Prices are assumed to remain at levels around the current 12 month average until 2018 and then resume the nominal price trajectory previously forecast by CRU.

Phosphate pricing, particularly for phosphoric acid and ammonium phosphate fertilisers, has remained robust over the last 12 months, avoiding the significant declines experienced in iron ore, base metals, coal and oil. This highlights that the industry demand and supply fundamentals are robust and that major players in the industry are behaving rationally with respect to supply expansions.

A further discussion on pricing has been included at Appendix 1 to this announcement and NPV sensitivity tables for commodity pricing, exchange rate and capital have been included at Appendix 2.

#### Updated Baseline Valuations

Amended capital, operating costs and price forecasts were provided to Origin Capital who updated the financial models. The following tables outline the key valuation outcomes and therefore the new economic baseline for the Ammaroo Project.

#### Case A – 2 million tonnes per annum of phosphate rock concentrate

Phosphate Rock Concentrate for export – 2 million tonnes per annum 32% P <sub>2</sub> O <sub>5</sub>			
Minimum Mine Life	Years	20	
Assumed first Production		Q1 2018	
		September 2014 Valuation	August 2015 Valuation
Assumed Price at first production	US\$/t	149	135
Sales Revenues	A\$M	9,100	9,447
Operating Costs/Transport/Native Title payments	A\$M	5,090	4,843
Total Capital estimate including contingency and Bankable feasibility	A\$M	780	755
Indicative Ungeared Post Tax NPV @10%	A\$M	330	510
Ungeared Post Tax IRR	%	17	20
Indicative 50% Geared Post Tax NPV @ 8%	A\$M	570	790
Geared Post Tax IRR	%	25	31
Payback	Years	5	4.5

Indicative NPVs are after tax project NPVs and do not include corporate overhead

A\$M: Millions of nominal Australian dollars

US\$: nominal US dollars

US\$ to A\$ exchange rate assumed to be \$0.70 over the life of mine

**Case B – 500,000 tonnes per annum of phosphoric acid (100% P<sub>2</sub>O<sub>5</sub>)**

Phosphoric Acid for export – 500,000 tonnes per annum (100% P <sub>2</sub> O <sub>5</sub> )			
<b>Minimum Mine Life</b>	Years	20	
<b>Assumed first Production</b>	Q2 2019		
		<b>September 2014 Valuation</b>	<b>August 2015 Valuation</b>
<b>Assumed Price at first production</b>	US\$/t	684	<b>780</b>
<b>Sales Revenues</b>	A\$M	10,520	<b>14,168</b>
<b>Operating Costs/Transport/Native Title payments</b>	A\$M	5,320	<b>5,777</b>
<b>Total Capital estimate including contingency and Bankable feasibility</b>	A\$M	1,400	<b>1,365</b>
<b>Indicative Ungeared Post Tax NPV @10%</b>	A\$M	55	<b>770</b>
<b>Ungeared Post Tax IRR</b>	%	11	<b>18</b>
<b>Indicative 50% Geared NPV @ 8%</b>	A\$M	390	<b>1,280</b>
<b>Geared Post Tax IRR</b>	%	14	<b>26</b>
<b>Payback</b>	Years	7.5	<b>5</b>

Indicative NPVs are after tax project NPVs and do not include corporate overhead

A\$M: Millions of nominal Australian dollars

US\$: nominal US dollars

US\$ to A\$ exchange rate assumed to be \$0.70 over the life of mine

**Case C – 1,020,000 per annum of Ammonium Phosphate Fertilisers**

DAP/MAP for export and domestic – 1,000,000 tonnes per annum			
<b>Minimum Mine Life</b>	Years	20	
<b>Assumed first Production</b>	Q4 2019		
		<b>September 2014 Valuation</b>	<b>August 2015 Valuation</b>
<b>Assumed Price at first production</b>	US\$/t	523	<b>523</b>
<b>Sales Revenues</b>	A\$M	20,100	<b>22,969</b>
<b>Operating Costs/Transport/Native Title payments</b>	A\$M	7,965	<b>8,287</b>
<b>Total Capital estimate including contingency and Bankable feasibility</b>	A\$M	1,830	<b>1,780</b>
<b>Indicative Ungeared Post Tax NPV @10%</b>	A\$M	790	<b>1,410</b>
<b>Ungeared Post Tax IRR</b>	%	16	<b>19</b>
<b>Indicative 50% Geared NPV @ 8%</b>	A\$M	1470	<b>2,250</b>
<b>Geared Post Tax IRR</b>	%	21	<b>27</b>
<b>Payback</b>	Years	5.5	<b>4.8</b>

Indicative NPVs are after tax project NPVs and do not include corporate overhead

A\$M: Millions of nominal Australian dollars

US\$: nominal US dollars

US\$ to A\$ exchange rate assumed to be \$0.70 over the life of mine

**RISKS AND OPPORTUNITIES**

In addition to the normal pricing, foreign exchange, financing, contracting, commercial, operational and product specification risks; environmental approvals and native title agreements are not yet in place, but the approvals process has been progressed and is primed to be completed in parallel with a bankable feasibility study.

There are a number of key opportunities that could create value upside:

- Continued geopolitical instability in the Middle East and Northern Africa creating impetus for phosphate price increases or investment, particularly from North American, Indian and Chinese fertiliser companies, in less risky jurisdictions, such as Australia
- Demand and price increases above current forecasts due to increased global growth and consumerism in Asia
- Legislative outcomes associated with the 'Developing Northern Australia' political initiative and regional free trade agreements could include measures to help create competitive advantage
- Potential for further cost reductions and productivity improvements in Australia as mining and oil and gas construction declines over the next few years
- Leveraging Australia's leading position in mining and processing automation and remote operations control in increasing productivity and lowering operating costs. This has not been considered in the PFS but will form a key component of a bankable feasibility study
- Opportunities that might exist to procure second hand capital equipment including ammonia plants, phosphoric acid plants, mining fleet and train rolling stock
- The value potential of the combination of RUM's Sulphate of Potash projects combined with the production of phosphate to produce compound NPK fertilisers with micro-nutrient additives to capture higher value segments of the market. This has not been considered in the PFS but is an opportunity.

Capital and operating cost estimations have been derived through a combination of market testing for budget pricing, analysis of current enterprise bargaining agreements and benchmarking on recent projects. None of it has been derived from competitive commercial negotiations. It is reasonable to assume that the current view of capital and operating costs incorporates some level of industry inertia to retain costs associated with the recent construction boom in mining and oil and gas. As these current projects are completed, there should be opportunity for unique projects such as this, to take advantage of the cycle downturn.

## **MOVING FORWARD**

RUM's medium term objective is to take one of the development options forward to a bankable feasibility study, government approvals and development. The most likely source of near term funding to advance these very large capital and reasonably complex projects is through the establishment of a joint venture and associated off-take agreements. Rum Jungle Resources commenced a global process to engage the fertiliser industry in early 2015 with a view of securing cornerstone industry investment into the project. Moreover, a cornerstone industry partner would determine the product strategy and therefore which project option to take into a bankable feasibility study. To date, a transaction that recognises reasonable value for entry into the project has not been completed but a number of discussions are ongoing with fertiliser industry participants.

It is important to note that potential development partners will have differing strategies regarding investment in the phosphate fertiliser space and what products will generate the most value in certain markets. For example, there may be Indian or Indonesian phosphate fertiliser producers looking to secure their supply of rock to underpin their existing or new investments in down stream production capacity in their home markets. Alternately, a large North American fertiliser producer may be looking to integrate upstream to fertiliser production in the Australasian region to underpin their previous investments in retail distribution infrastructure or to access growth markets more readily or Chinese producers looking to establish offshore production to better access export markets.

The company is also in the fortunate position of being able to progress smaller scale, lower capital projects such as the Karinga Lakes Sulphate of Potash Project and potentially the Dingo Hole Silica project, that may enable nearer term cash flows to be realised that could subsequently be utilised to underpin the advancement of the Ammaroo Phosphate Project in time.

Shareholders are reminded that the completion of a pre-feasibility study in September 2014, and indeed this revaluation, does not mean that the project is financeable and that no financing decision has been made to develop the project.

## **Appendix 1 – Phosphate product price discussion and analysis**

## **Appendix 2 – Sensitivity analysis**

**APPENDIX 1  
PHOSPHATE PRODUCT PRICE DISCUSSION AND ANALYSIS**

Pricing of phosphate products over the last 12 months has remained robust despite the current global economic situation. This demonstrates that the fundamentals of demand and supply are in reasonable balance and prices reflect the marginal cost of production. It is therefore reasonable to assume that current pricing represents a justifiable long term view.

The following tables highlights the 12 month average price for key phosphate products from the dominant Moroccan suppliers in Free on Board terms (FOB – Loaded onto a ship at the nearest port for export).

**12 Month Average Price - \$US per tonne**

Phosphate Rock Concentrate 68%-72% BPL – FOB Morocco	Phosphoric Acid (100% P <sub>2</sub> O <sub>5</sub> ) – FOB Morocco	Di-ammonium Phosphate (DAP) – FOB Morocco	Mono Ammonium Phosphate (MAP) – FOB Morocco
<b>\$115</b>	<b>\$770</b>	<b>\$498</b>	<b>\$505</b>

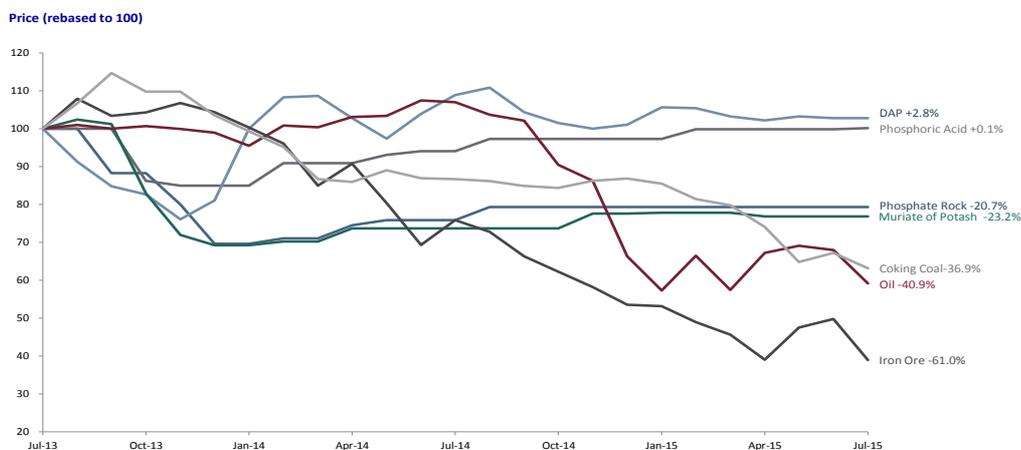
Source: CRU

It should be noted that for product delivered from Darwin to Asia, shipping costs to India and SE Asia are lower than from Morocco and therefore a small netback advantage could be applied to the price. Furthermore, Australian rock concentrate is lower in carbonate than Moroccan rock and therefore a lower acid consumer, which could enable some level of value in use price being captured.

The following graph outlines the price relativities of phosphate products in comparison to other key commodities traded globally, specifically, Iron Ore, Oil, Coking Coal and Muriate of Potash.

**Commodity prices in US dollar terms – last 2 years**

Prices of phosphate products that are traded globally have remained relatively steady, avoiding the declines of other commodities such as Iron Ore, Oil and coking coal



Source: Bloomberg, CRU, World Bank  
Note: Prices are in US\$



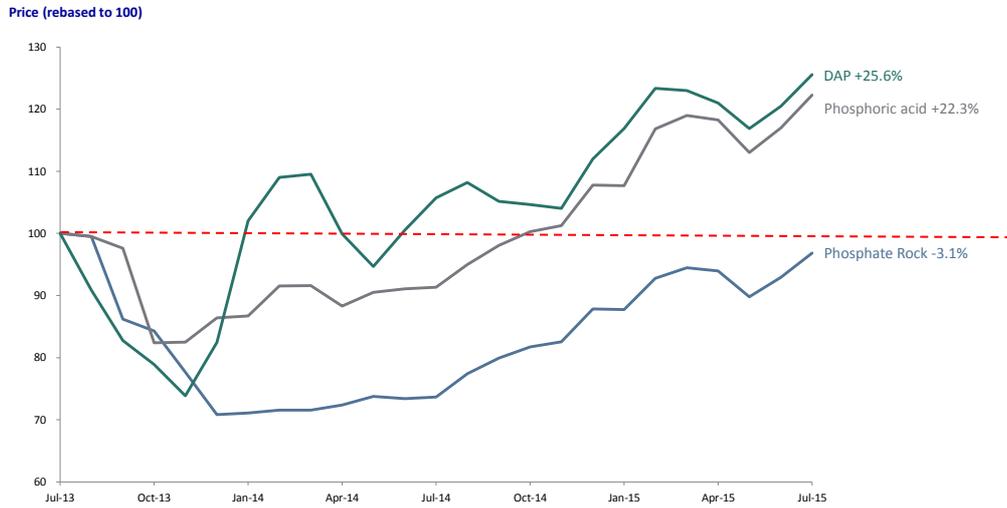
Source: Bloomberg, CRU, World Bank

As can be seen from the following graph, the weakening of the Australian dollar has led to a significant price increase for downstream phosphate products in Australian dollar terms.

### Phosphate prices in Australian dollar terms – last 2 years



Prices of downstream phosphate fertiliser products have increased significantly in Australian dollar terms



Source: Bloomberg  
Note: Prices are in US\$

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Source: Bloomberg, CRU, World Bank

**APPENDIX 2**

**SENSITIVITY ANALYSIS**

The following tables outline the key sensitivities to the post-tax geared NPV of changes to phosphate prices, exchange rate, capital expenditure and discount rate.

**Case A – Phosphate Rock Concentrate**

*Price*

NPV Sensitivity (Geared) – Phosphate Rock Concentrate Price and Discount Rate – A\$ millions						
Phosphate Rock Concentrate Price Sensitivity						
		-20%	-10%	0%	+10%	+20%
Discount Rate	7%	449	678	905	1,131	1,357
	8%	381	588	790	996	1,200
	9%	322	510	695	880	1,063

*Exchange Rate*

NPV Sensitivity (Geared) – Exchange Rate and Discount Rate – A\$ millions						
Exchange rate (US\$: Aus\$)						
		0.60	0.65	0.70	0.80	0.90
Discount Rate	7%	1,281	1,079	905	621	398
	8%	1,132	950	790	537	335
	9%	1,002	837	695	463	280

*Capital Expenditure*

NPV Sensitivity (Geared) – Capex and Discount Rate – A\$ millions						
Capex Sensitivity						
		-20%	-10%	0%	+10%	+20%
Discount Rate	7%	981	943	905	866	828
	8%	866	830	790	755	719
	9%	765	730	695	660	624

**CASE B – Phosphoric Acid**

*Price*

NPV Sensitivity (Geared) – Phosphoric Acid Price and Discount Rate – A\$ millions						
Phosphoric Acid Price Sensitivity						
		-20%	-10%	0%	+10%	+20%
Discount Rate	7%	695	1,096	1,495	1,886	2,280
	8%	568	927	1,280	1,632	1,983
	9%	459	782	1,100	1,414	1,727

*Exchange rate*

NPV Sensitivity (Geared) – Exchange Rate and Discount Rate – A\$ millions						
Exchange rate (US\$: Aus\$)						
		0.60	0.65	0.70	0.80	0.90
Discount Rate	7%	2,149	1,796	1,495	996	604
	8%	1,866	1,552	1,280	838	486
	9%	1,623	1,342	1,100	702	386

*Capital Expenditure*

NPV Sensitivity (Geared) – Capex and Discount Rate – A\$ millions						
Capex Sensitivity						
		-20%	-10%	0%	+10%	+20%
Discount Rate	7%	1,652	1,573	1,495	1,412	1,331
	8%	1,432	1,357	1,280	1,204	1,127
	9%	1,243	1,172	1,100	1,027	953

**Case C – DAP/MAP**

*Price*

NPV Sensitivity (Gearing) – DAP/MAP Price and Discount Rate – A\$ millions						
DAP/MAP Price Sensitivity						
		-20%	-10%	0%	+10%	+20%
Discount Rate	7%	1,443	2,047	2,645	3,241	3,835
	8%	1,189	1,723	2,250	2,779	3,303
	9%	975	1,450	1,920	2,386	2,851

*Exchange rate*

NPV Sensitivity (Gearing) – Exchange Rate and Discount Rate – A\$ millions						
Exchange rate (US\$: Aus\$)						
		0.60	0.65	0.72	0.80	0.90
Discount Rate	7%	3,637	3,104	2,645	1,897	1,308
	8%	3,129	2,658	2,250	1,591	1,069
	9%	2,696	2,278	1,920	1,332	868

*Capital Expenditure*

NPV Sensitivity (Gearing) – Capex and Discount Rate – A\$ millions						
Capex Sensitivity						
		-20%	-10%	0%	+10%	+20%
Discount Rate	7%	2,854	2,749	2,645	2,540	2,433
	8%	2,450	2,352	2,250	2,153	2,052
	9%	2,107	2,014	1,920	1,825	1,728

**DISCLAIMER**

The PFS and cost updates have been prepared on behalf of, and for the exclusive use of, Rum Jungle Resources and is subject to and issued in accordance with the agreement between Rum Jungle Resources and WorleyParsons. WorleyParsons accepts no liability or responsibility whatsoever for it in respect of any use of, or reliance upon, this report by any third party.

**ATTESTATION**

The information in this report that relates to the Mineral Resource estimates is based on information compiled by Jonathon Abbott, a Competent Person who is a Member of the Australian Institute of Geoscientists. Jonathon Abbott is a full time employee of MPR Geological Consultants Pty Ltd and is an independent consultant to Rum Jungle Resources. Mr Abbott has sufficient experience that 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 2012 Edition of the “Australasian Code for Reporting of Mineral Resources and Ore Reserves”. Mr Abbott consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.



**Jonathon Abbott**  
**Consulting Geologist**  
**MPR Geological Consulting Pty Ltd**

**FORWARD LOOKING STATEMENTS**

*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 announcement 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 announcement, particularly given that Rum Jungle Resources has not yet made a decision to proceed to develop the Ammaroo Phosphate Project or any other project, and Rum Jungle Resources does not yet know whether it will be able to finance this project.*

A handwritten signature in black ink, appearing to read 'C. Tziolis', with a large, stylized flourish extending from the end of the signature.

**Chris Tziolis**  
**Managing Director**