



## West Musgrave Project Operational Update

### HIGHLIGHTS

- **Activity ramps up at the West Musgrave Project**
- **Resource extension drilling program to commence at Nebo-Babel next week**
- **Energy, Water and Transport Logistics Studies currently underway**
- **Metallurgical test work progressing on schedule**

Cassini Resources Limited (ASX:CZI) (“Cassini” or the “Company”) is pleased to provide a market update regarding Further Scoping Study activities at the West Musgrave Project (“WMP” or the “Project”), located in Western Australia. This program of work represents the first stage of the Earn-in/JV Agreement with OZ Minerals Limited (ASX:OZL) (“OZ Minerals”).

The key outcomes of this stage are to further reduce technical risk through additional metallurgical test work and to update previous mining and processing studies to determine optimal size of a mining operation to realise maximum value.

The Further Scoping Study (FSS) activities are progressing on schedule towards delivery in Q4 2017.

ACTIVITY	STATUS
Metallurgical Test Work	In Progress
Transport Logistics Study	In Progress
Energy Study	Commenced
Water Study	Commenced
Resource Extension Drilling	Commencing April
Process Plant Design	In Preparation
Geology & Resource Modelling	Following Resource Drilling
Mine Optimisation and Design	Commencing Q3
Financial Modelling	Commencing Q3
Study Compilation & Delivery	Commencing Q3

### 2017 Field Season Underway

Cassini has re-opened the camp at the West Musgrave Project for the upcoming field activities. All heritage and environmental permits have been obtained, enabling drilling activities to commence immediately.



*Cassini and OZ Minerals Executive teams at West Musgrave Project, March 2017.*

### **Resource Extension Drilling**

A drilling contractor has been secured and is expected to arrive on-site early next week. The drilling program has been designed to test a number of potential high-grade extensions to both Nebo and Babel. The RC drill program will consist of approximately 1,800m and test a number of zones all of which are supported by coincident electromagnetic (EM) anomalies. Additional high-grade mineralisation will have a positive impact on project economics.

An update of the geology interpretation and resource model will follow and form the basis of updated mine plans and schedules.

More details about the drill program will be released shortly in a separate report.

### **Energy, Water and Transport Logistics Studies**

A number of infrastructure studies have commenced, building on the results of Cassini's 2015 Scoping Study. The objectives of the Energy Study are to evaluate a number of conventional and renewable fuel options to facilitate the optimum processing throughput. WSP-Parsons Brinckerhoff have been engaged to complete the Study.

Cassini has previously proposed a hybrid wind-diesel power solution and to this end a wind mast will be installed to collect baseline wind data. Hybrid solar options will also be revisited in a desk top study.

CDM Smith have been engaged to complete a review of groundwater sources for the Project. The Study will identify and assess key environmental, water-related factors and risks for the project including the approvals pathway. Included in the study are two drill holes targeting nearby palaeochannels within the project area that have the potential to host significant water resources to satisfy the processing plant requirements. These palaeochannels are significantly closer to the proposed processing site than the water sources previously contemplated and could provide a significant capital cost saving if found to be sufficient.

Finally, a review of the transport logistics will be undertaken by Qube Logistics and comprise a review of all transport route options to ultimately recommend a complete supply chain solution integrating incoming supplies with outgoing product.

### **Metallurgical Test Work and Process Plant Design**

Metallurgical test work commenced in January 2017 and is expected to be completed in June. The aim of the program is to build on the positive results achieved by previous work and to provide a higher level of confidence that these results are representative of a broader range of samples from the Nebo and Babel ore bodies. The Company hopes to release interim test results when they come to hand.

The metallurgical program results will provide inputs into the Process Plant Design which will be developed by GR Engineering, and will start as soon as the floatation test work is complete. GR Engineering are a leader in floatation plant design and recently commissioned the Nova plant for Independence Group.

The Company looks forward to providing further updates and results as they come to hand.

For further information, please contact:

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### **About the Company**

Cassini Resources Limited (ASX: CZI) is a base and precious metals developer and explorer based in Perth. In April 2014, the Company acquired its flagship West Musgrave Project (WMP), located in Western Australia. The WMP is a world-class asset which currently has over 850,000 tonnes of contained nickel and 1.8 million tonnes of contained copper in Resource. The WMP is a new mining camp with three existing nickel and copper sulphide deposits and a number of other significant regional exploration targets already identified. The WMP is the largest undeveloped nickel copper project in Australia.

In August 2016, Cassini entered into a \$36M Earn-in/Joint Venture (JV) agreement with prominent Australian mining company OZ Minerals Ltd (ASX: OZL). The JV will fund the continued development and exploration of the WMP, and provides a clear pathway to a decision to mine and potential cash flow for the Company.

Cassini is also progressing its Mt Squires Gold Project in WA and an early stage zinc exploration project in the West Arunta region of WA.

Current Highlights:

- Cassini's West Musgrave project contains one of Australia's largest undeveloped nickel/copper deposits
- Cassini is free carried to a "decision to mine" via a 3 stage A\$36m joint venture agreement with OZ Minerals
- Previous Scoping Study presented highly attractive economics, supporting a long life, open pit development
- Significant exploration upside across portfolio with Succoth Copper deposit and multiple other mineralised targets identified at additional deposits
- High impact A\$8m regional exploration program to be executed in Stages 2 and 3 of the joint venture
- Track record of prudent investment and capital management with a CY2016 exploration / administration ratio of 1.5x (compares favourably to peer group average of 0.9x)<sup>1</sup>
- Leveraged to increases in nickel prices with reducing global inventories and a looming supply shortage, as well as significant exposure to copper

## Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled or reviewed by Mr Greg Miles, who is an employee of the company. Mr Miles is a Member of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Miles consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

The Company is not aware of any new information or data, other than that disclosed in this report, that materially affects the information included in this report and that all material assumptions and parameters underpinning Exploration Results, Mineral Resource Estimates and Production Targets as reported in the market announcements dated 13, April 2015 and 7 December 2015, continue to apply and have not materially changed. Further details regarding previous drilling at One Tree Hill can be found in ASX announcement dated 14<sup>th</sup> September 2015 and 8 December 2016.

## APPENDIX A

### West Musgrave Project Mineral Resources Statement<sup>1,2</sup>

Prospect	Classification	Tonnes (Mt)	Ni (%)	Cu (%)	Co (ppm)	Au (ppm)	Pt (ppm)	Pd (ppm)
Nebo	Indicated	25.8	0.52	0.46	215	0.05	0.07	0.09
	Inferred	3.0	0.60	0.48	229	0.04	0.08	0.10
	<b>Total</b>	<b>28.9</b>	<b>0.53</b>	<b>0.46</b>	<b>217</b>	<b>0.05</b>	<b>0.07</b>	<b>0.09</b>
Babel	Indicated	69.7	0.39	0.42	139	0.07	0.10	0.12
	Inferred	104.5	0.38	0.40	135	0.08	0.11	0.12
	<b>Total</b>	<b>174.2</b>	<b>0.39</b>	<b>0.41</b>	<b>137</b>	<b>0.08</b>	<b>0.11</b>	<b>0.12</b>
<b>Nebo + Babel</b>	<b>Total</b>	<b>203.1</b>	<b>0.41</b>	<b>0.42</b>	<b>148</b>	<b>0.08</b>	<b>0.10</b>	<b>0.12</b>
Succoth	Inferred	156	0.06	0.60	-	0.02	0.04	0.11

Notes:

1. Nebo-Babel Indicated and Inferred Mineral Resource (0.3%Ni cut-off), February 2015
2. Succoth Deposit Inferred Mineral Resource estimate (0.3% Cu cut-off), December 2015