



**CASSINI**  
RESOURCES LIMITED

ABN: 50 149 789 337

ASX Announcement

29 October 2014

## **Company Presentation and Investor Update – Mining 2014 Resources Convention**

Cassini Resources Limited (ASX: CZI) is pleased to lodge a copy of the presentation that Managing Director Mr Richard Bevan will be presenting at this year's Mining 2014 Resources Convention that is being held at the Hilton Brisbane Hotel, Queensland from Wednesday 29 October to Thursday 30 October 2014.

Mr Bevan will be presenting at 5.30PM AEST today, Wednesday 29 October, and welcomes all shareholders and investors available to attend.

For further information, please contact:

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Cassini Resources Limited  
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### **About Cassini**

Cassini Resources Limited (ASX: CZI) is an Australian resource company that successfully listed on the ASX in January 2012. In April 2014, Cassini acquired the significant Nebo and Babel nickel and copper sulphide deposits in the Musgrave region of WA. The Company's primary focus is now on the development of these deposits and progressing them through to successful mineral production as a matter of priority.

Cassini aims to progress its development projects, to explore and add value to its exploration stage projects with the aim to increase shareholder value.

# MINING 2014 RESOURCES CONVENTION

29 - 30 OCTOBER 2014, BRISBANE



**CASSINI**  
RESOURCES LIMITED

Richard Bevan, Managing Director



# Disclaimer & Important Notice



Statements and material contained in this Presentation, particularly those regarding possible or assumed future performance, production levels or rates, resources or potential growth of Cassini Resources Limited, industry growth or other trend projections are, or may be, forward looking statements. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties.

This presentation may describe Measured, Indicated and/or Inferred Resources. Inferred Resources have a greater amount of uncertainty as to their existence and greater uncertainty as to their economic feasibility. It cannot be assumed that all or any part of any Inferred Resource will ever be upgraded to a higher category. Exploration is an inherently risky proposition and investors are advised that most exploration projects fail to identify economic resources. The Company has at present not confirmed the economic viability of any resources at the project. The company plans further drilling programs and studies with the objective of confirmation of any deposits and ultimately completing a feasibility study to demonstrate the economics of the resources.

The information contained in this presentation is for informational purposes only and does not constitute an offer to issue, or arrange to issue, securities or other financial products. The information contained in this presentation is not investment or financial product advice and is not intended to be used as the basis for making an investment decision. The presentation has been prepared without taking into account the investment objectives, financial situation or particular needs of any particular person.

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Before making an investment decision, you should consider, with or without the assistance of a financial adviser, whether an investment is appropriate in light of your particular investment needs, objectives and financial circumstances.

## Competent Persons Statement

The information in this report that relates to Exploration Results and Mineral Resource Estimates 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 Mineral Resource Estimates as reported in the market announcement dated 14th of April 2014 continue to apply and have not materially changed.

# Company Snapshot



- Acquired BHP Billiton's West Musgrave Project in May 2014
  - > Nebo-Babel are world class Ni + Cu sulphide deposit
  - > 1.47Mt of contained Ni and 1.56Mt of contained Cu
  - > Outstanding deal structure – minimal upfront consideration
  - > Once in a cycle opportunity
- Aiming to complete scoping study March 2015
- Significant advanced exploration program underway



# Company Overview



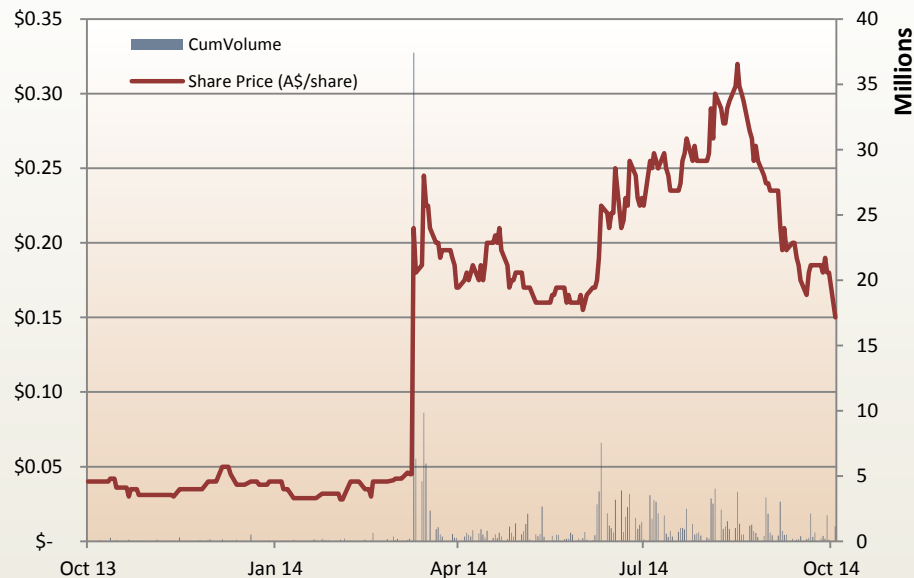
## Capital Structure

Current Share Price (close 27/10/14)	<b>15 cps</b>
Shares on Issue	<b>114,436,390</b>
Options on Issue	<b>15.6 million</b>
Market Capitalisation	<b>\$17.2 million</b>
Cash (30/09/14)	<b>\$6.2 million</b>
Enterprise Value	<b>\$11.0 million</b>

## Directors and Management

Mike Young	<b>Non Executive Chairman</b>
Richard Bevan	<b>Managing Director</b>
Greg Miles	<b>Executive Director</b>
Dr Jon Hronsky	<b>Non Executive Director</b>
Phil Warren	<b>Non Executive Director</b>
Dr Zoran Seat	<b>Exploration Manager</b>
Dr Ben Grguric	<b>Consultant Mineralogist</b>

## Share Price & Volume





# West Musgrave Project Overview

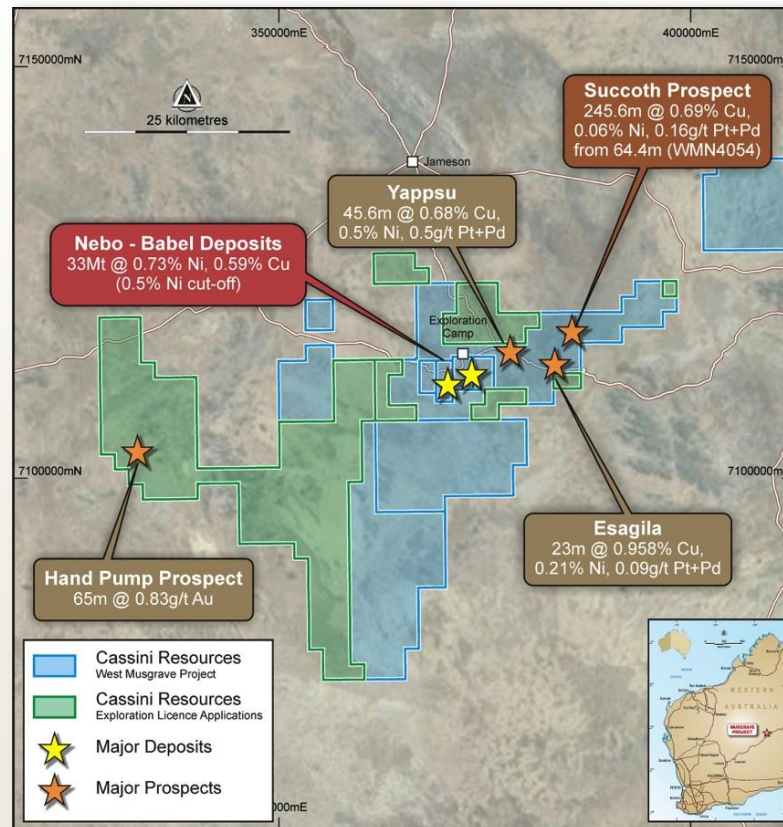


## Nebo-Babel (Ni + Cu Sulphide) Deposits

- ✓ Discovery hole May 2000; **26.55m @ 2.45% Ni, 1.78% Cu**, 0.74g/t PGE+Au
- ✓ JORC Inferred Mineral Resource of 446Mt @ 0.33% Ni, 0.35% Cu (0.2% Ni cut off)
- ✓ Cassini to focus on the higher grade zone  
**33Mt @ 0.73%Ni , 0.59% Cu** (0.5% Ni cut off )
- ✓ Open Pit mining opportunity - Large, shallow, flat ore body

## Additional Exploration Targets within the Project Area

- ✓ 20km mineralised corridor
- ✓ Multiple high grade Ni + Cu zones near surface identified
- ✓ Succoth Cu Prospect confirmed as priority exploration target
  - Drilling includes **245.6m @ 0.69% Cu** from 64.4m; and 130.85m @ 0.69% Cu from 73.2m



# Key Points



- Cassini is pursuing a **materially different** development strategy
- **Higher-grade**, lower output = lower capex and shorter timeline to production
- Nebo-Babel deposits are an **open pit opportunity**:
  - > Targeting grades of **>0.7% Ni and >0.6% Cu** at depths of less than 250 metres
- Initial results received from exploration program are delivering on strategy
- Exploration upside already demonstrated



# Exploration Strategy – Nebo-Babel



## Aims

- Increase resource confidence (Inferred to Indicated)
- Confirm continuity of higher grade zones
- Test open extensions of Nebo
- Test metallurgical recoveries and develop mineral processing flow sheet





# Exploration Program – Nebo-Babel



## Program

- 25,000 metres of RC drilling
- 600 metres of diamond drilling to collect samples for Metallurgical testing

## Status

- Nebo drill program completed (13,000m)
- Babel program 25% complete
- Met Program diamond drilling complete
- Mineral Processing and Metallurgical test work underway



# Initial RC Drill Results



- Assay results from initial drill holes exceed expectations
- High tenor nickel and copper massive sulphide mineralisation
- Grades up to 3.67% Ni and 2.67% Cu intersected over wide intervals
- All results to date confirm continuity in-line with existing resource model
- Now have > 600m of continuous high grade mineralisation at Nebo
- Discovery of new massive sulphide lode (Sugar Lode) outside existing Resource at Nebo

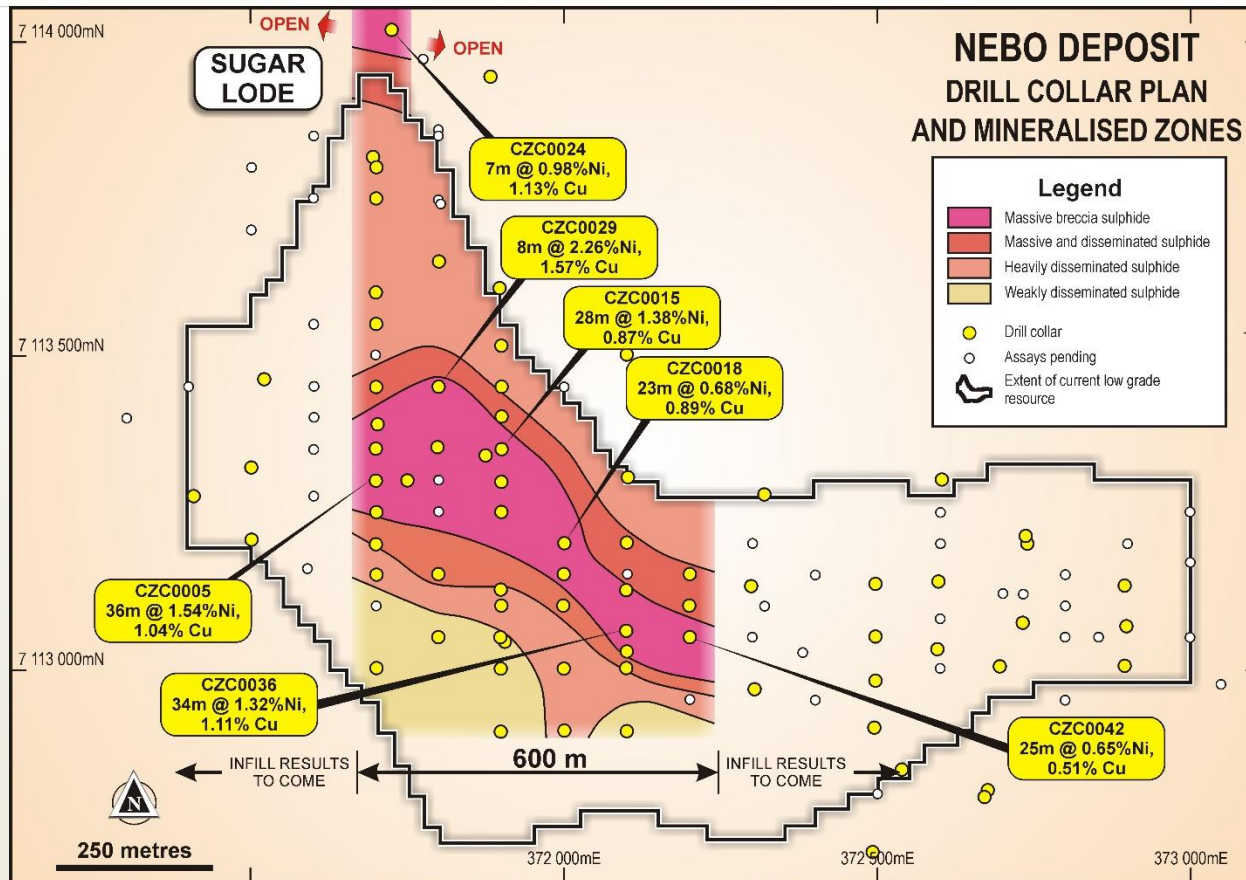


# Significant Intercepts



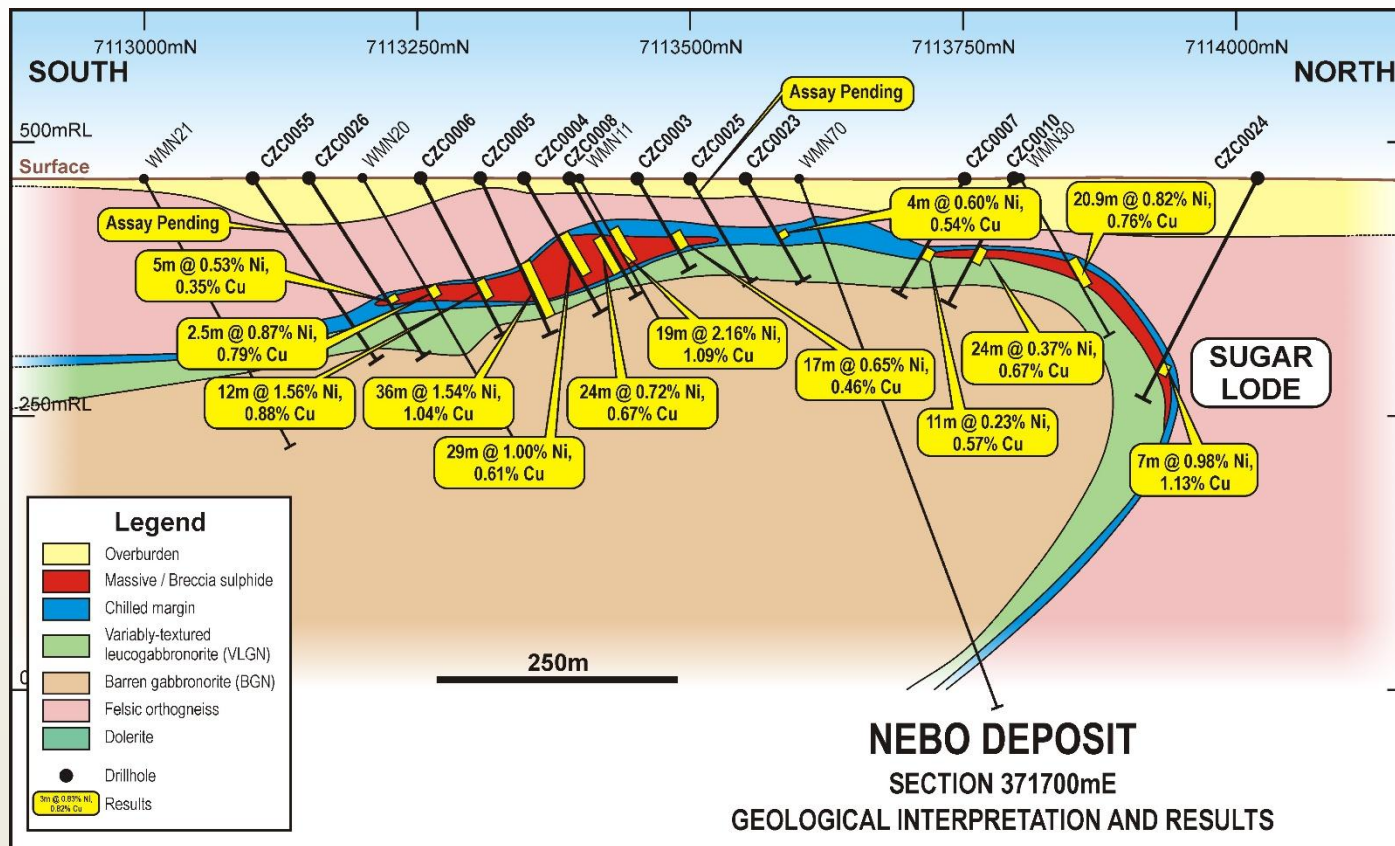
<b>CZC0004</b>	<b>29m @ 1.00% Ni and 0.61% Cu from 56m, including; » 2m @ 3.12% Ni and 1.07% Cu from 81m.</b>
<b>CZC0005</b>	<b>36m @ 1.54% Ni and 1.04% Cu from 90m, including; » 10m @ 2.46% Ni and 1.44% Cu from 90m.</b>
<b>CZC0015</b>	<b>28m @ 1.38% Ni and 0.87% Cu from 63m, including; » 6m @ 3.40% Ni and 0.96% Cu from 84m.</b>
<b>CZC0036</b>	<b>34m @ 1.32% Ni and 1.11% Cu from 77m, including; » 12m @ 2.25% Ni and 1.17% Cu from 91m.</b>
<b>CZC0042</b>	<b>25m @ 0.65% Ni and 0.51% Cu from 91m, including; » 5m @ 1.62% Ni and 0.69% Cu from 93m.</b>

# Nebo – Continuity over 600m ...and growing





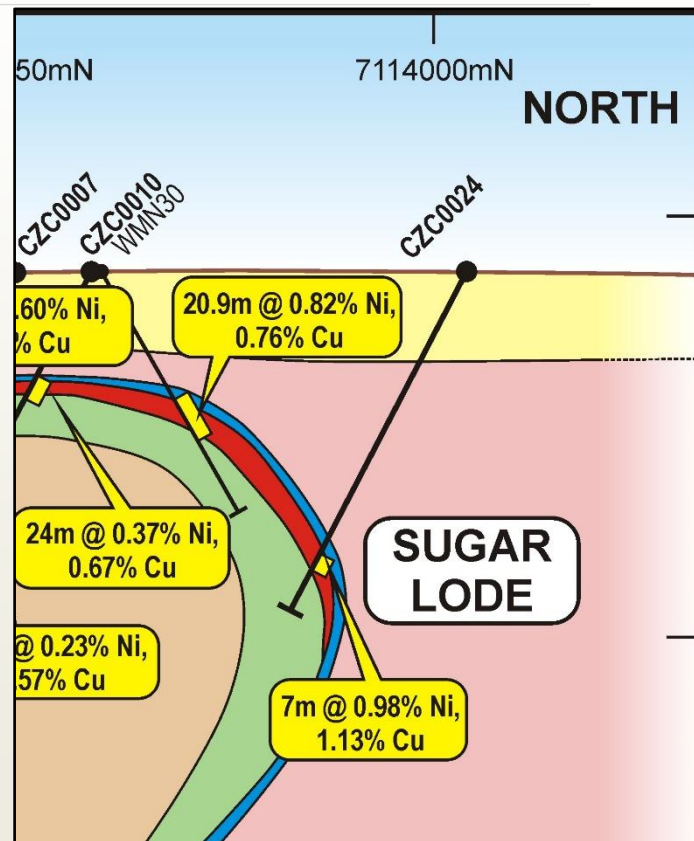
# Nebo – Typical Cross Section



# Sugar Lode – A New Massive Sulphide Zone



- Discovery outside current resource
- Targeted previously untested EM conductor
- **7m @ 0.98% Ni and 1.13% Cu from 185m (CZC0024)**
- Remains open along strike and down dip
- Additional hole drilled along strike – results pending



# Metallurgy and Mineral Processing



- Metallurgical program designed specifically for Cassini's higher-grade strategy
- Previous testing performed on lower-grade disseminated ore
- Focused on massive and high grade disseminated components
- Expect to produce separate Cu and Ni concentrates, which improves project economics
- Precedent exists for successful flotation of the different sulphide minerals in similar copper-nickel sulphide ores

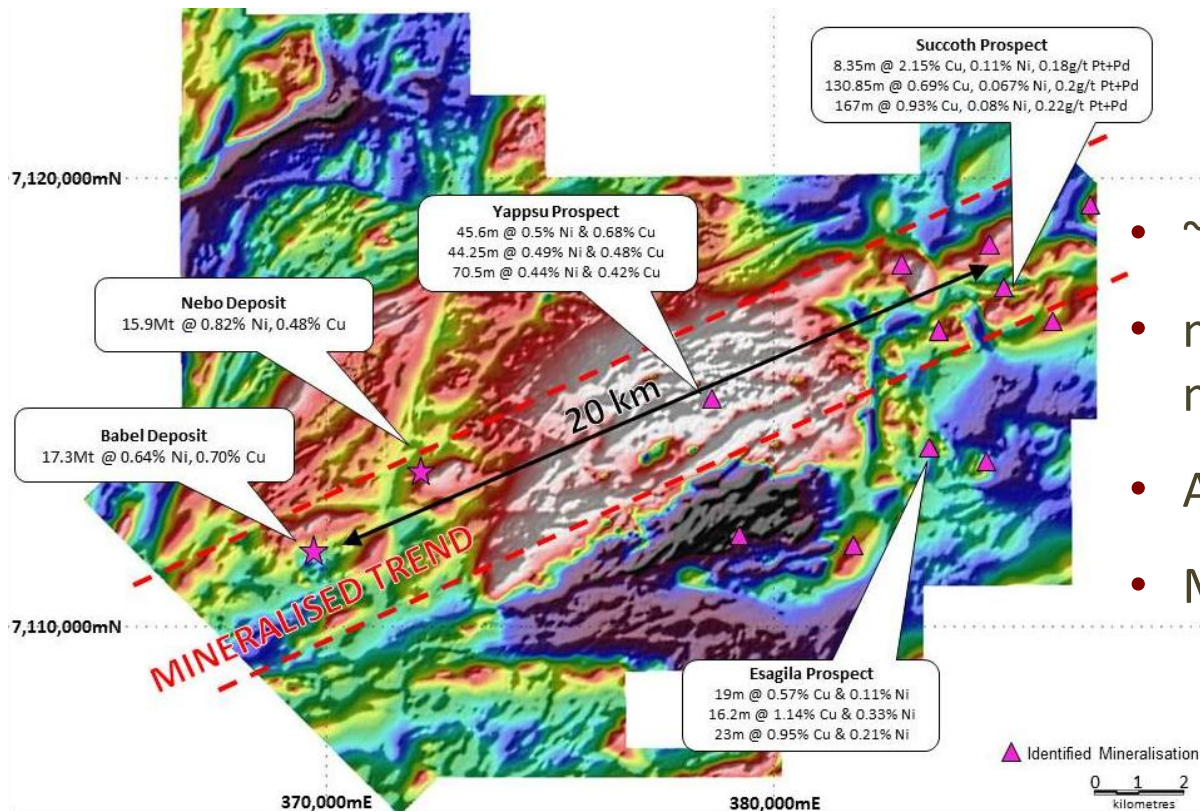


Nebo-Babel mineralogy comparable with Sudbury (Canada), Norilsk (Russia), Voisey's Bay (Canada) and Nova (Western Australia).

- A high Iron/Magnesium (Fe/MgO) ratio.
- Coarse, granular sulphides. Coarser material typically allows relatively easy separation of the metal-bearing sulphide component from the ore.
- No significant deleterious minerals such as talc and fibrous serpentine
- Low penalty elements such as arsenic (As).
- The presence of Cobalt and PGE mineralisation with potential to add credits to saleable concentrates.



# Strong Regional Prospectivity

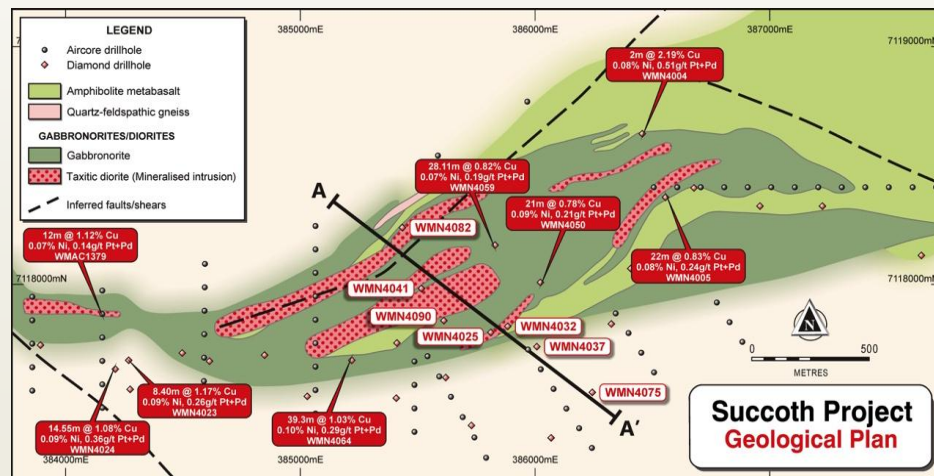
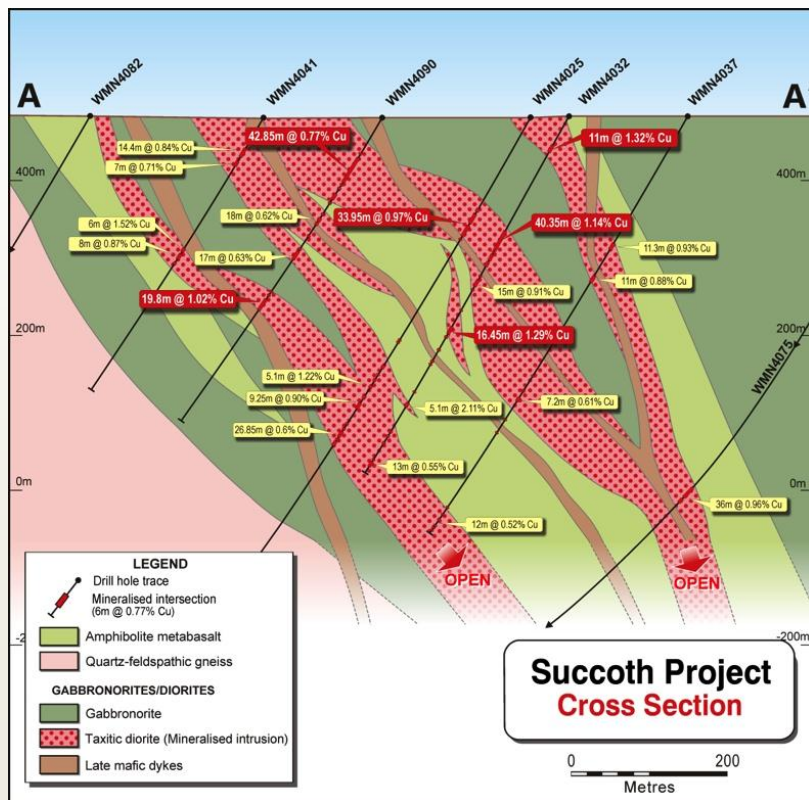


- ~20 km of mineralised trend
- multiple prospects with minimal historical drilling
- All worthy of follow up work
- Most advanced is Succoth

# Succoth Cu Prospect – Huge Potential



- Discovered 2009, approximately 13km ENE of Nebo-Babel
- Mineralisation over 3km strike, open at depth (400m)
- Sparsely drilled (35 RC and diamond holes)
- Drilling includes **245.6m @ 0.69% Cu from 64.4m**; and **130.85m @ 0.69% Cu from 73.2m**
- High grade copper mineralisation close to surface (+1% Cu)



# Expected Program Timelines



ACTIVITY	STATUS	COMPLETION
RC Drilling program - Nebo	Complete	Oct 2014
RC Drilling program - Babel	Underway	Nov 2014
Extension of Existing Resource – Nebo	Complete	Oct 2014
RC Drilling Program at Succoth	Yet to Commence	Dec 2014
DD program for Met samples	Complete	Oct 2014
Met Test work and Mineral Processing	Underway	Q1 2015
Updated Resource model at Nebo-Babel	Yet to Commence	Q1 2015
Mineral Processing and Metallurgy Report	Yet to Commence	Q1 2015

# Highlights



- Excellent acquisition of world class West Musgrave Project in WA
- Current exploration program is delivering on strategy
  - > Proven 600+ m of continuous higher-grade Ni-Cu so far...
  - > Discovery of new massive sulphide lode (Sugar Lode)
- Key project milestones known within next 4-6 months
  - > Increased resource confidence at Nebo-Babel (to Indicated)
  - > Scoping level Metallurgical recovery and Processing flow sheet
  - > Progress Succoth Cu target
- Fully-funded to achieve project objectives and beyond
- Strong management and Board





# Contact Details



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# Appendices

# CZI



# Resource Statement



## Nebo-Babel Inferred Resource Estimate (JORC 2012)

Prospect	Cut-off Ni%	Mt	Ni%	Cu%	As ppm	Co ppm	Fe %	MgO %	S %
Nebo	0.2	84	0.39	0.31	3	153	9.5	5.9	2.5
Babel	0.2	362	0.32	0.36	3	118	9.9	7.8	2.1
<b>Total</b>	<b>0.2</b>	<b>446</b>	<b>0.33</b>	<b>0.35</b>	<b>3</b>	<b>125</b>	<b>9.9</b>	<b>7.4</b>	<b>2.2</b>
Nebo	0.5	15.9	0.82	0.48	3	323	14.2	3.7	5.6
Babel	0.5	17.3	0.64	0.70	3	196	12.9	6.0	4.4
<b>Total</b>	<b>0.5</b>	<b>33.2</b>	<b>0.73</b>	<b>0.59</b>	<b>3</b>	<b>257</b>	<b>13.5</b>	<b>4.9</b>	<b>5.0</b>

*Figures in the above table have been rounded to reflect the relative uncertainty of the Estimate.*

*Refer to ASX announcement dated 14<sup>th</sup> April 2014 for JORC Table 1 information to support this Estimate*