

### **INNOVATION AT THE FRONTIERS**

24 February 2016

**Explorers**Conference

### Cassini – Definitely not a one trick pony





### Nevada Projects - Au

- Early Stage Projects
- World class mining district

#### West Musgrave Project - Ni, Cu, Au

- Development Nebo Babel Ni & Cu Deposits
- Advanced Exploration Succoth Cu Deposit
- Large under-explored regional tenure with Ni, Cu & Au targets

### West Arunta (X17) Project – Zn, Pb

- Emerging Project
- Potential new Zinc province



### Current Focus on Near Term Exploration Success



- Nebo-Babel is a large scale, low operating cost, long mine life asset.
- Highly valuable in most nickel and copper price environments
- Aim is to preserve asset value during bottom of commodity price cycle
- Cassini has a number of high impact opportunities which can be progressed very cost-effectively



### **Exploration Strategy**



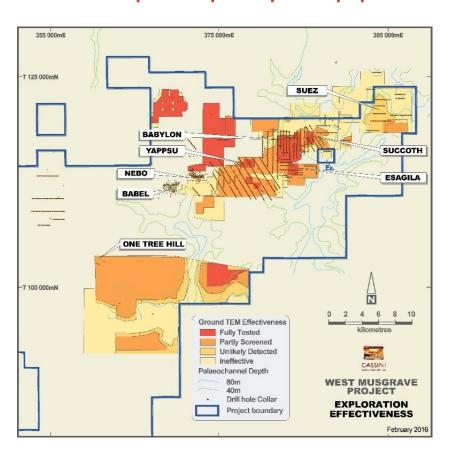
- Chasing big rewards targeting large mineral systems
- Improved chances of success understanding the geology in under-explored regions
- Reduce non exploration risks first world jurisdictions, operational competency
- Leveraging strengths expertise in exploration and development of base metals & gold



### **West Musgrave Project**

## A complete prospect pipeline in one Project Area





### **Development Assets**

Nebo – Babel Ni & Cu Deposits

### **Advanced Exploration**

Succoth Cu Deposit

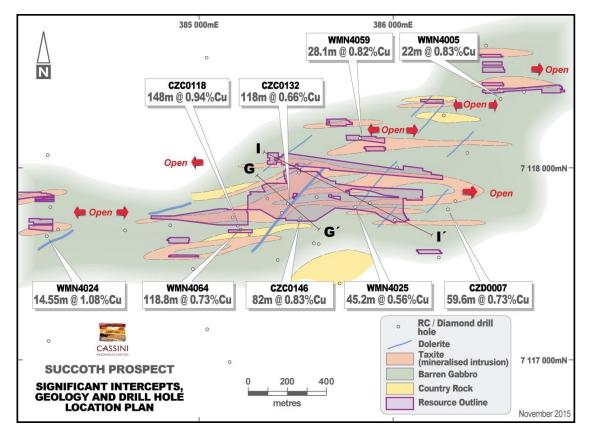
#### **Earlier Stage Exploration**

- Multiple mineralised targets
- Majority of Project area not effectively explored

Exploration success adds value to Nebo-Babel development

### Exploration will grow Succoth

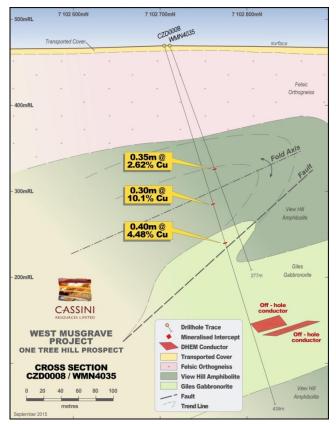




- Maiden Resource Dec 2015
- Inferred 156mt @ 0.60% Cu
- Shallow, open-pit, mineralisation (adds to N-B development)
- Infill drilling likely to significantly increase resource
- Exploration drilling to target massive Ni + Cu sulphides at depth
- EIS funding 2 holes in 2016

### One Tree Hill – One step from discovery?







- Only two holes previously drilled with encouraging results
  - 0.4m @ 2.62% Cu from 152.6m
- CZD0008 drilled to test EM plate
  - 0.30m @ 10.1% Cu from 193.8m
- Strong off-hole conductor (~100,000S) untested

Ready to drill

### West Arunta Project X17 – A potential new zinc province



- Cassini JV commenced 2013, acquired 100% in July 2015
- Large scale conceptual target
- Intersection of several fundamental lithosphere-scale structures
- Minimal historical exploration
- Considered X17 prospective for:
  - Intrusion hosted, Cu-Au deposits in the northern part of the Project,
  - Sediment-hosted, base metals deposits (either Cu or Zn-Pb) in the south

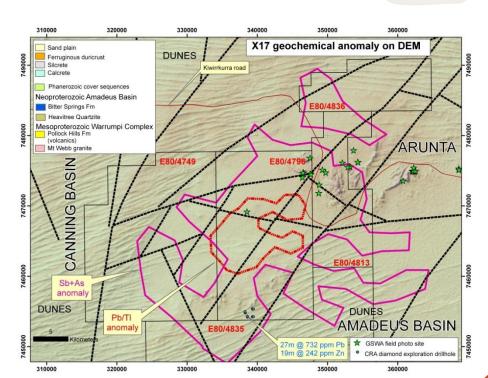
# THE CENTRALIAN BASIN: MINERALISED OVER > 2 500 KM X17: First-order tectonic location within Nifty, Telfer etc Centralian Basin

Summary of Interpreted Centralian Basin Geology - purple = Cu occs; Orange = Cu-Au occs

### Limited exploration presents great opportunity



- GSWA pre-competitive geochemistry
  broad spaced (3km grid)
- Reprocessed data focussing on pathfinder indices
- Generated large, but subtle geochem anomaly (40km x 20km)
- Only historical drilling 3 aircore holes in 1994 (CRA) drilling for diamonds.
  - 27m @ 732 ppm Pb and 19m@ 242 ppm Zn



### Initial Cassini Program



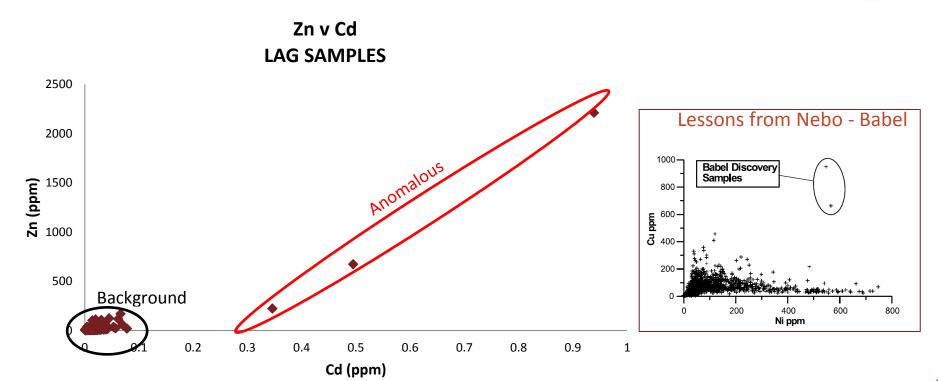




- Follow-up soil sampling on 1,000 x 500m centres based on West Musgrave program that found Nebo – Babel
- Difficult regolith requires <u>great</u> science to interpret the data
  - » Analysis pushed lowest limits of detection and required data normalisation to remove the influence of silica (sand)
- Three highly Zn anomalous lag samples identified (2210 ppm, 671 ppm and 222 ppm) coincident with soil anomalies
- Importantly, samples are also highest cadmium (Cd) anomalous samples in the data set
- Cd typically occurs concentrated in sphalerite, the primary ore for Zn mineralisation
- Broad spacing means potentially more to be discovered with infill soil geochemistry

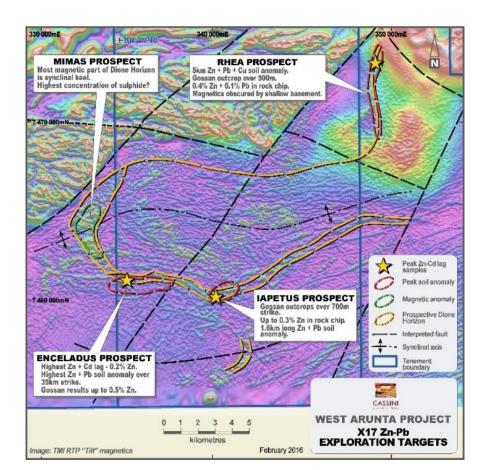
### Compelling evidence for a major zinc system





### Geological context is the key





- Re-processed magnetics shows interpreted prospective stratigraphic horizon (Dione horizon) over 35km
- NW faults provide potential fluid pathway
- Coincident soil and lag anomalies with prospective geology

**Getting excited!!** 

### Field Recce identifies gossans

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- Field mapping identifies Zn-anomalous gossans associated with <u>each</u> soil anomaly
- Anomalous Zn rockchips with pathfinders –
  Pb, Cd, Cu, Ni, As, Ba & Tl

Rockchip assay results up to:

Zn: 4720ppm

Pb: 1190ppm

Cu: 290ppm

Ni: 366ppm

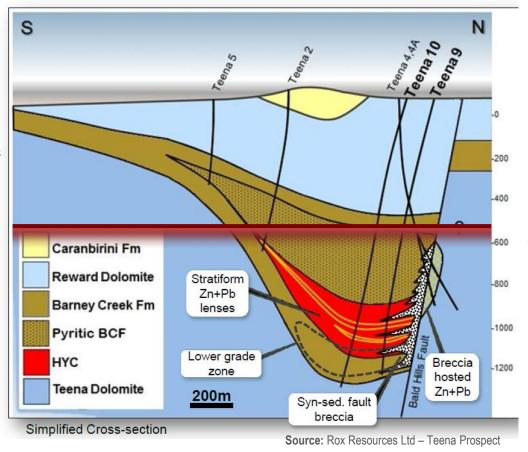




Highly anomalous results for weathered sedimentary rocks

### The Opportunity





- "Conventional" sediment hosted deposition model
- Multiple targets over 35km prospective horizon
- Highly anomalous Zn mineralisation at surface

#### X17 surface level?

### **X17** – Pathway to Discovery



#### Feb/Mar 14

Heritage Agreement and Survey

#### July 14

Field trip regolith interp. and Geochem program



#### **Feb 15**

Final geochem analysis



#### **Sep 15**

Updated Geo interp.

#### **Oct 15**

Field trip discovery of Gossans



### **Apr 2016**

#### Maiden drill program

Test primary Zn mineralisation beneath gossans

Low cost exploration - **ALL FUNDED** 



#### **Jul 15**

CZI acquires 100% of X17 project

#### Dec 13



CZI acquires 75% of X17 project









- Active exploration and development company
- Huge leverage to base metal prices
- On the verge of discovery at X17
- A range of near-term exploration targets at the West Musgrave
  - all which can add to Nebo-Babel development
- Funded to execute next phase of work
- Capable management team



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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 information in this report that relates to the Mineral Resources has been compiled by Mr Aaron Green, who is a full-time employee of CSA Global Pty Ltd. Mr Green is a Member of the Australian Institute of Geoscientists and has sufficient experience 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 Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Green consents to the disclosure of this information in this report in the form and context in which it appears.

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