





# Cash Flow + Growth + Upside

Annual General Meeting - 27th November 2017





### Important Information

#### **Forward Looking Statement**

This presentation may contain certain statements and projections provided by or on behalf of Aus Tin Mining Limited (Aus Tin Mining) with respect to the anticipated future undertakings. These forward-looking statements reflect various assumptions by or on behalf of Aus Tin Mining. Accordingly, these statements are subject to significant business, economic and competitive uncertainties and contingencies associated with exploration and/or mining which may be beyond the control of Aus Tin Mining which could cause actual results or trends to differ materially, including but not limited to price fluctuations, exploration results, reserve and resource estimation, environmental risks, physical risks, legislative and regulatory changes, political risks, project delay or advancement, ability to meet funding requirements, factors relating to property title, native title and aboriginal heritage issues, dependence on key personnel, share price volatility, approvals and cost estimates. Accordingly, there can be no assurance that such statements and projections will be realised. Aus Tin Mining makes no representations as to the accuracy or completeness of any such statement of projections or that any forecasts will be achieved.

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#### **Material Assumptions**

The material assumptions which support the Taronga Ore Reserves Estimate, Production Targets and the forecast financial information derived from the Production Targets are disclosed in the body of the ASX announcements referred to in this Presentation, with the exception of commercially sensitive information.

#### **Competent Persons Statement**

The information in this presentation that relates to Exploration Targets and Exploration Results is based on information compiled by Mr Nicholas Mather B.Sc (Hons) Geol., who is a Member of The Australian Institute of Mining and Metallurgy. Mr Mather is employed by Samuel Capital Pty Ltd, which provides certain consultancy services including the provision of Mr Mather as a Director of Aus Tin Mining. Mr Mather has more than five years experience which is relevant to the style of mineralisation and type of deposit being reported 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 Exploration Results, Minerals Resources and Ore Reserves' (the JORC Code). This public report is issued with the prior written consent of the Competent Person(s) as to the form and context in which it appears.

The information in this Announcement that relates to Mineral Resources is based on information extracted from the report entitled "Maiden JORC Resource Estimated for the Taronga Tin Project" created on 26<sup>th</sup> August 2013 and is available to view on <a href="www.austinmining.com.au">www.austinmining.com.au</a> Aus Tin Mining confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

In the information in this Announcement that relates to Ore Reserves is based on information extracted from the report entitled "Pre-Feasibility Advances the Taronga Tin Project" created on 7<sup>th</sup> April 2014 and is available to view on <a href="www.austinmining.com.au">www.austinmining.com.au</a>. Aus Tin Mining confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.



### Aus Tin Mining (ANW) aiming to become a major Australian tin producer

- Executing a strategy to deliver tin production before expected rise in tin prices
  - Tin is yet to attract the attention of other industrial metals critical to energy revolution
  - Pipeline of projects from operating (Granville), development (Taronga) and exploration (Torrington)
- Also undertaking exploration for cobalt & lithium:
- Last 12 months represents "transition" period with selected highlights including:
  - Ramp-up at Granville and preparations for Level 2
  - Taronga Development Application submitted
  - Mt Cobalt high grade cobalt drill results
- Next 12 months targeting :
  - Expanded scale of operations at Granville
  - Capital works / operations for Taronga Stage 1 subject to approval
  - Expanded exploration program at Mt Cobalt and Torrington

Aus Tin Mining's Production, Development & Exploration Projects





### Granville Tin (TAS) - Providing cash flow & building development expertise

High Grade Brown Field

- High grade skarn up to 4.18%Sn<sup>1</sup>
- Existing plant & open cut
- Life of Mine (LOM) off-take with Traxys Europe



Shipment Number 1 sold to Traxys Europe

Level 1 (De-risk)

- Production of saleable concentrate
- Re-treating low/medium-grade stockpiles
- Develop technical capabilities
- Pilot logistics & sales
- Level 2 permits obtained

Level 2 (cash flow)

- Effective from ground disturbing activities
- Mining high-grade ore
- Increase production rate (40ktpa)
- Targeting 550tpa contained tin
- Estimated margin A\$10,000/t

Extend Life of Mine (exploration / acquisition / tolling)

<sup>&</sup>lt;sup>1</sup> Refer ASX Announcement dated 7<sup>th</sup> December 2015



## Taronga Tin (NSW) - Provides scale and significant upside

Globally Significant (57,000 tonnes contained tin)<sup>1</sup>

- Open pit and low strip ratio
- Simple metallurgy
- Region has strong mining heritage
- Resource open at depth

Stage 1 Project (De-risk)

- Trial mine & pilot processing plant
- Production of saleable concentrate
- Forecast Revenue > CAPEX/OPEX
- Enable optimisation of funding model for Full Scale

Full Scale (BIG cash flow)

- PFS completed (2014)<sup>2</sup> with estimated revenues of A\$700M
- Potential to increased LOM revenues above A\$1,000M<sup>3</sup>
  - Realising probable range of true grades<sup>2</sup>
  - Recovery of by-product credits

<sup>1</sup> Refer ASX Announcement 26<sup>th</sup> August 2013

<sup>2</sup> Refer ASX Announcement 7<sup>th</sup> April 2014

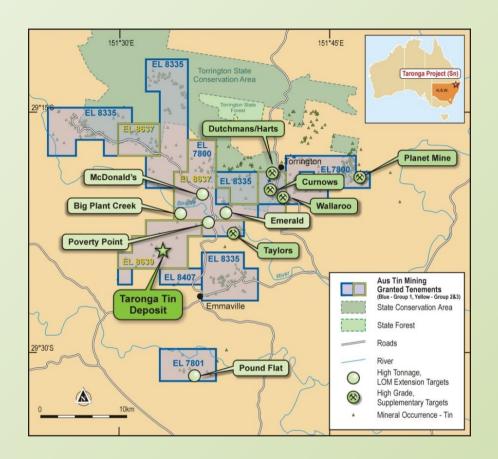
<sup>3</sup> Refer ASX Announcement 6<sup>th</sup> November 2017

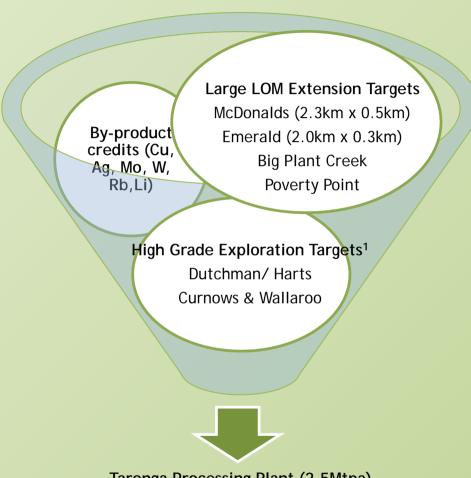
Extend Life of Mine (exploration)

Emmaville MINING museum



## Centralised Taronga mill could unlock highly prospective Torrington region





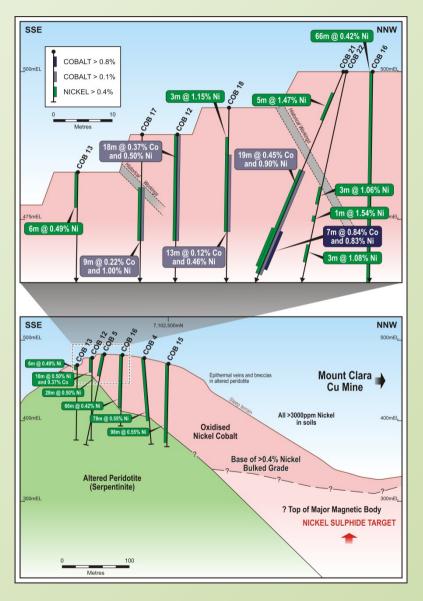
Taronga Processing Plant (2.5Mtpa) (to deliver longer line life or higher annual tin production)

<sup>&</sup>lt;sup>2</sup> Refer ASX Announcement dated 26<sup>th</sup> August 2013



<sup>&</sup>lt;sup>1</sup> Refer ASX Announcement dated 2<sup>nd</sup> September 2017

### Mt Cobalt (QLD) is a nickel & cobalt target and could be the "X-Factor"



Mt Cobalt located 40km west of Gympie (QLD)

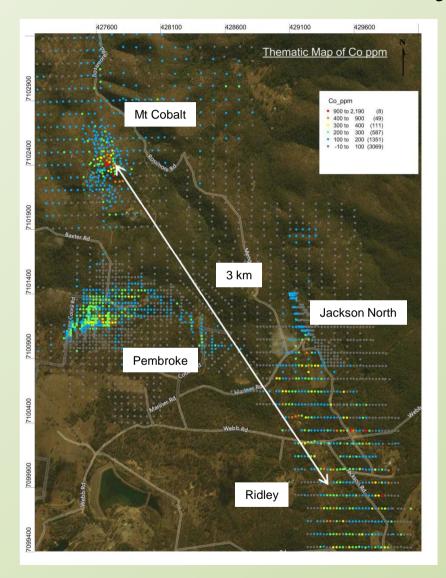
- Located within EPM 19366 (100% held by ANW)
- Recent focus on high grade cobalt target
  - Recent rock chip samples up to 1.66%Co<sup>1</sup>
  - 2016 drilling results drilling, including 7m @ 0.84%Co, 0.83%Ni)<sup>2</sup>
- But additional targets associated with
  - Large scale oxidised nickel/cobalt
  - Nickel sulphide target (never drilled)

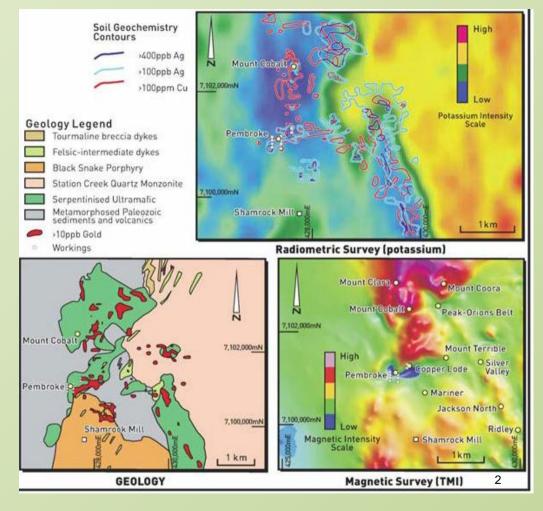


<sup>&</sup>lt;sup>1</sup> Refer ASX Announcement dated 5<sup>th</sup> July 2016;

<sup>&</sup>lt;sup>2</sup> Refer ASX Announcement dated 23<sup>rd</sup> November 2016

## Cobalt mineralisation extends beyond Mt Cobalt itself







Soil samples for Mt Cobalt to Ridley within EPM 19366 (Co ppm)<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Refer ASX Announcement 28 April 2017

<sup>&</sup>lt;sup>2</sup> Refer Replacement Prospectus dated 4 August 2010

### **Major Targets for 2018**

- 1. Deliver Granville Expansion to generate cash flow to fund development (Taronga) and exploration
- 2. Deliver approvals for Taronga enabling capital works / operations to commence for Stage 1
- 3. Expand exploration activities focussed on Mt Cobalt (cobalt) and Torrington (tin & lithium)

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Visit: www.austinmining.com.au



## **Supporting Slides**



### Why we think tin is a good commodity to be invested in

• No longer a "tin can" story - it's electronics (48%) and energy storage for hybrid cars (8%)

### Tin certainly part of the energy revolution

- Concerns over future supply
  - Last two years global supply in deficit driving LME stockpiles to historic lows
  - Global mine production in decline(down 11% from 2014)
  - Limited new projects in pipeline
- Limited investment options into tin producing companies
  - Aus Tin Mining <u>one of seven</u> tin focussed producers listed globally



Semi-conductor growth over 18% driven by the booming memory device market<sup>1</sup>



Lead-Acid battery market forecast to grow 7.7%pa to 2020<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> Source ITRI, May 2017



<sup>&</sup>lt;sup>1</sup> Source EPS News, 15<sup>th</sup> December 2017

### Major tenement holder in one of Australia's premier tin fields

### History of Emmaville Field

- Mining first commenced in 1870s
- 88,000 tonnes of contained tin reported to have been produced from the Emmaville / Torrington field

### Highly prospective exploration tenement package

- Approximately 350km<sup>2</sup> package owned 100%
- Circa 300 tin prospects and historic mines identified within Company's exploration licences
- Prospective for tin, copper, silver, tungsten, molybdenum, lithium and rubidium
- Previous exploration undertaken by leading resources companies, including BHP, Newmont, MIM, North Broken Hill

# Conceptual model based on a centralised plant at Taronga treating ore from

- Taronga Probable Ore Reserves<sup>1</sup> supporting a 9 Year Life of Mine
- High grade supplementary feed (eg Dutchman/Harts)
- Life of Mine extension targets (eg McDonalds)

**Planet Mine** McDonald's EL 8335 Curnows Big Plant Creek Emerald **Poverty Point Taylors** EL 8407 Granted Tenements
(Blue - Group 1, Yellow - Group 2&3) Taronga Tir State Conservation Area Deposit State Forest Pound Flat High Tonnage, LOM Extension Targets Supplementary Targets Mineral Occurrence - Tin

Torrington State

**Dutchmans/Harts** 

151°45'E

Taronga Project (Sn

151°30'E

<sup>1</sup>Refer ASX announcement dated 7<sup>th</sup> April 2014



### Taronga provides the springboard towards major production

Taronga Tin Project owned 100% by ANW

- Extensive exploration history, including BHP and Newmont
- Large Mineral Resource of 57,200t contained tin plus 26kt contained copper and 4.4Moz contained silver.
   Resource open at depth, with historic results including 1m @ 2.6%Sn from 169m and 2m @ 1.0%Sn from 351m<sup>1</sup>
- 2014 Pre-Feasibility Study<sup>2</sup> reported at time of release:
  - Probable Ore Reserves<sup>3</sup> supporting a 9 Year Life of Mine producing 2,800tpa tin in concentrate<sup>2</sup>
  - Technical risk is low with open cut mining and simple metallurgy
  - showed a positive NPV
- Upside identified during PFS, notably
  - Potential increased tin ore grade
  - Potential increased tin recovery

<sup>3</sup> Ore Reserves, production and cost data have not been updated

<sup>1</sup> Refer ASX announcement dated 26<sup>th</sup> November 2012

<sup>2</sup>Refer ASX announcement dated 7<sup>th</sup> April 2014

Potential recovery of by-product credits

Schematic of Taronga life of mine pit shells and associated infrastructure (PSF 2014)

Potential NPV#

Potential extension through Life of Mine targets<sup>4</sup>

Potential increased tin concentrate grade / recovery<sup>2</sup>

Potential recovery of byproduct credits, including copper, silver, <sup>3A</sup> tungsten, molybdenum & lithium<sup>3B</sup> Potential high grade supplementary feed<sup>5</sup>

Potential increased tin ore grade<sup>1</sup>

Base Case NPV

#Independent valuation of Taronga highlights potential value upside available at www.austinmining.com.au/Projects/Taronga

Refer ASX Releases 182 7/10/15; 3A 20/5/13; 3B 16/6/16; 46/10/15; 5 2/9/14; 67/4/14



since the PFS

Tallings Dem W.L. RL 890

Coarse Rojact
RL 890

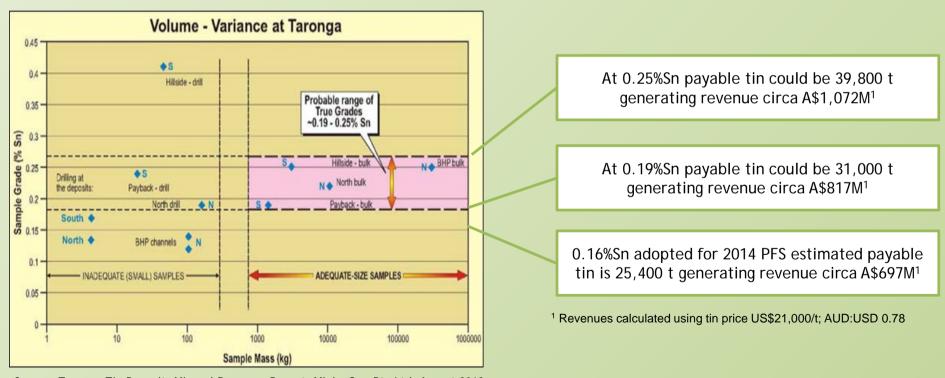
Coarse Rojact
RL 800

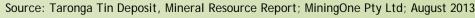
### Demonstrating an increased grade at Taronga would be a game changer

### Evidence to suggest the grade could be higher includes

- BHP & Newmont assessed bulk samples (true range 0.19%Sn to 0.25%Sn)
- Positive reconciliation from 2015 drilling (average 0.26%Sn for composite metallurgical sample)
- MiningOne indicate "probable range of true grades ~0.19%Sn to 0.25%Sn"

An increased grade could improve economics dramatically and change funding for larger scale development and hence the importance of the trial mine / Stage 1 Development







### Targeting Taronga Stage 1 Development to be ANW's second tin operation

Taronga Stage 1 Development to test Taronga upside on large scale\*

- Proposed trial mine (340kt @ 0.23%Sn)
- On-site processing to produce premium grade concentrate
- Targeting low CAPEX with opportunity for reduction through surplus Granville equipment

Opportunity to test areas of upside identified during PFS, notably

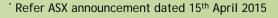
- Potential increased tin ore grade
- Potential increased tin recovery
- Potential recovery of by-product credits

Progressing the Development Application and may be considered by local council before end of 2017

Subject to approvals, targeting commencement in 2018

Stage 1 open pit (only 1% of Mineral Resource)

Block model showing grade and conceptual pit design at Taronga Tin Project





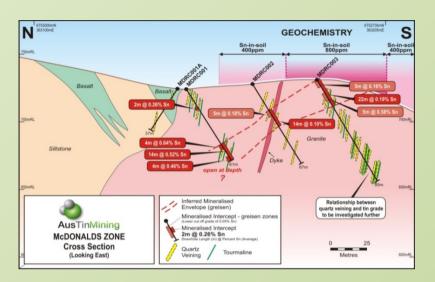
### Significant potential to expand tin inventory with exploration success

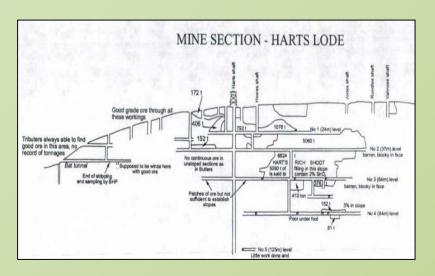
#### Life of Mine extension targets - eg McDonalds

- Sheeted vein system similar to Taronga but expected to have higher grades as closer to granite
- Geochemistry / gravity / IP works generated a target 2,300m x 500m
- 2015 maiden drilling program confirmed high grade mineralisation up to 5m @ 0.58%Sn from 12m<sup>1</sup>

#### High grade supplementary feed targets - eg Dutchman/Harts<sup>2</sup>

- Historic underground mine with reported production of grade of 3.5%Sn
- North Broken Hill Pty Ltd completed a feasibility study (1967) concluding operations would be feasible
- 2010 drilling confirmed high grade mineralisation with highest reported results 0.8m @ 3.6%Sn
- Six key high grade targets including historic Dutchman & Harts<sup>2</sup> provide the basis of an Exploration Target of approximately 150kt to 265k at approximately 2.3% to 2.5%Sn<sup>1,3</sup>





Historical mine plan prepared by North Broken Hill (circa 1969)



<sup>&</sup>lt;sup>1</sup> Refer ASX announcement dated 6<sup>th</sup> October 2015

<sup>&</sup>lt;sup>2</sup> Refer ASX announcement 2<sup>nd</sup> September 2014

<sup>&</sup>lt;sup>3</sup> Exploration Target is conceptual in nature, noting there has been insufficient exploration to estimate a Mineral Resource and that it is uncertain if further exploration will result in the estimation of a Mineral Resource. The Company is planning an exploration program to test the targets over the next 12 months

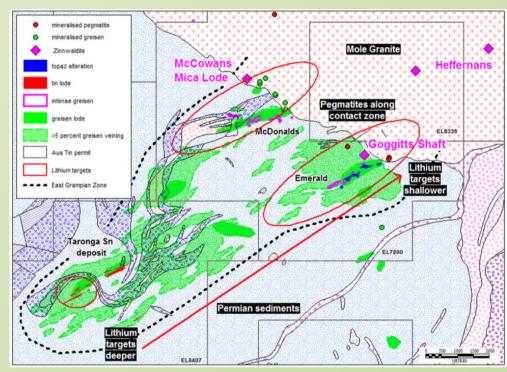
### Upside: Possible lithium production ancillary to proposed tin operations

2016 investigations into lithium potential at Taronga delivered a number of exciting opportunities<sup>1</sup>:

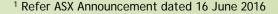
- Lithium mineralisation (zinnwaldite) reported at several locations within Torrington exploration licences (north east of Taronga)
- Pegmatite (lithium) target generated within the Southern Zone of Taronga based on pervasive occurrence of beryl
- Elevated rubidium levels widespread across
   Taronga
- Group 2 & 3 exploration titles recently granted

Factors to be considered for possible future development

- Mining and bulk of processing costs incurred for recovery of tin, so processing of lithium would only incur incremental costs
- Lithium expected to be associated with mica that can be recovered to a flotation concentrate



Location of historic Zinnwaldite occurrences along strike from Taronga





### Transitioning Granville to next stage and beyond

#### **Granville Expansion**

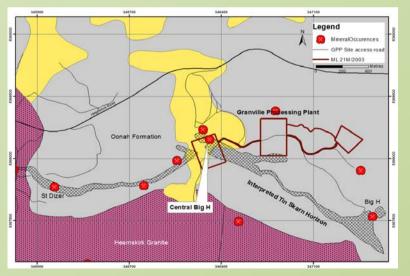
- Approved June 2017 following extensive studies
- Construction of new infrastructure and resumption of mining in high grade open cut expected to commence one ground conditions suitably dry
- Processing rate at existing processing plant to be increased from 2,500tpa to 40,000tpa
- Targeting production of 550tpa tin in concentrate at A\$15,600/t - equates to approx. A\$10,000/t margin at current tin price<sup>1</sup>

# Granville provide a base to explore and evaluate opportunities in Tasmania

- Closet target is Central Big H (tin skarn) located within existing mining lease and @ 450m from processing plant
- Over 100 tin prospects identified within 25km of processing plant



Topographical overview of existing Granville East Mine with proposed east wall cutback superimposed



Central Big H magnetite/tin exploration target

