



**METALS X LIMITED**



# Investor Update

13 September 2019

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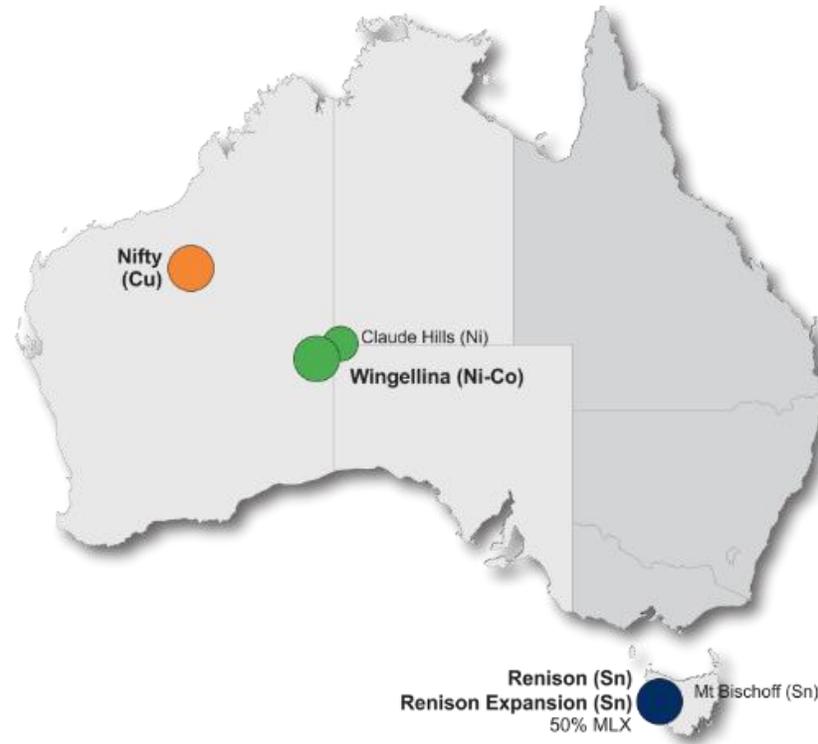
This Presentation contains certain “forward-looking statements”. Forward looking statements can generally be identified by the use of forward looking words such as “anticipate”, “expect”, “likely”, “intend”, “should”, “could”, “may”, “propose”, “will”, “believe”, “forecast”, “estimate”, “target”, “outlook”, “guidance” and other similar expressions within the meaning of securities laws of applicable jurisdictions and include, but are not limited to, the future performance of the Company. Forward-looking statements, opinions and estimates provided in this Presentation are inherently uncertain and are based on assumptions and estimates which are subject to certain risks, uncertainties and change without notice, as are statements about market and industry trends, which are based on interpretation of market conditions. Actual results and performance may vary materially because events and actual circumstances frequently do not occur as forecast and future results are subject to known and unknown risk such as changes in market conditions and in regulations. Investors should form their own views as to these matters and any assumptions on which any of the forward-looking statements are based and not place reliance on such statements. To the maximum extent permitted by law, the Company and its directors, officers, employees, advisers, agents and intermediaries disclaim any obligation or undertaking to release any updates or revisions to the information to reflect any change in expectations or assumptions. An investment in the Company’s shares is subject to investment and other known and unknown risks, some of which are beyond the control of the Company, including possible loss of income and capital invested.

# A DIVERSIFIED BASE METALS BUSINESS

*Redeveloping Nifty into a significant “new” long life copper mine by unlocking the substantial geological upside through development into new mining areas and focusing on operational improvements*

## Nifty Copper Operations (MLX 100%)

- Acquired in late 2016 on basis of geological upside and significant infrastructure
- Commitment to drilling has refined and expanded resources both east and west of the Central Mining area
- Focus is renovating & developing into the new mining areas
- Reset Plan on track to build to a 2.0Mtpa mining rate anticipated during March quarter 2020
- Very strong exploration potential both near mine and regionally within very large ground holding within the Paterson Province



## Wingellina Nickel – Cobalt Project (MLX 100%)

- Very large scale nickel-cobalt development project
- Ready to meet increasing global demand for responsibly sourced battery metals
- Phase 1 Feasibility Study completed with positive results
- High grade starter pits identified to enhance NPV
- Seeking a strategic partner to advance the project

*“Awaking the Giant” by growing the world class Renison Tin Operations to meet the increasing global demand for responsibly sourced tin.*

## Renison Tin Operations (MLX 50%)

- A world class orebody with a long-term mining future
- Generating high margins and strong cashflow
- New high grade Area 5 development project set to substantially increase mill feed grade
- Substantial upside potential in production, development and exploration
- Currently producing 7.5 - 8.0kt tin in concentrate per annum

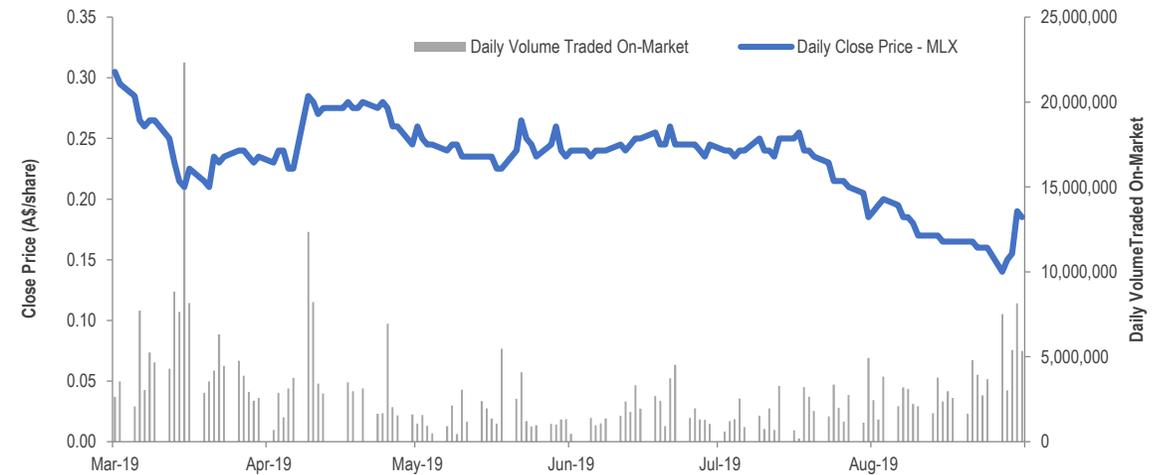
# CORPORATE OVERVIEW

Capital Structure	Current
Shares on issue	689,060,508
Share price (as at 12 September 2019)	A\$0.21
Market capitalisation (as at 12 September 2019)	A\$144.7M
Available cash (as at 30 June 2019)	A\$11.4M
Working capital & investments (incl. cash) (at 30 June 2019)	A\$46.4M
Corporate debt (as at 30 June 2019) <sup>1</sup>	Nil
Enterprise value	A\$133.3M

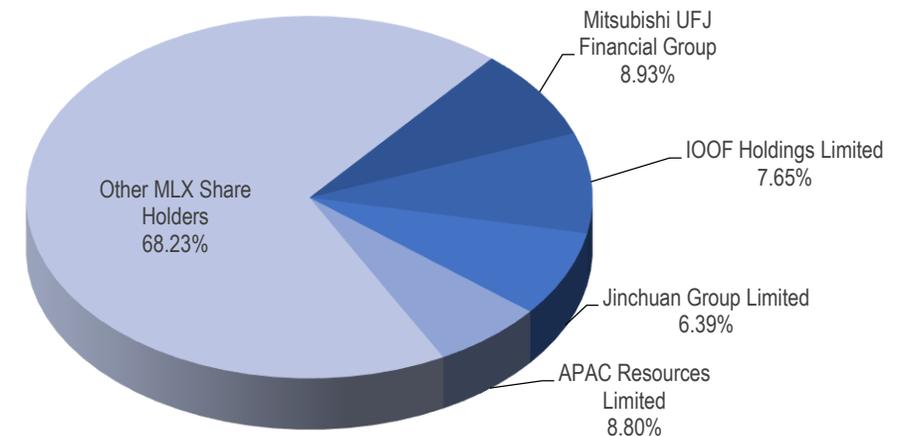
1. On 29 September 2019 the Company entered into a A\$35M Finance Facility with Citibank N.A of which \$22.5M was drawn down on 11 September 2019

Board & Management	
Non-Executive Chairman	Peter Newton
Managing Director	Damien Marantelli
Non-Exec Director	Simon Heggen
Non-Exec Director	Yimin Zhang
Company Secretary & CFO	Fiona Van Maanen
EGM Projects & Planning	Stephen Robinson
EGM Mining & Technical	Campbell Baird
EGM Geology & Business Development	Simon Rigby
GM – Nifty Copper Operations	Russell Cole
GM – Renison Tin Operations	Mark Recklies

## Share Price & Market Volume



## Substantial Shareholders



# RENISON TIN OPERATIONS

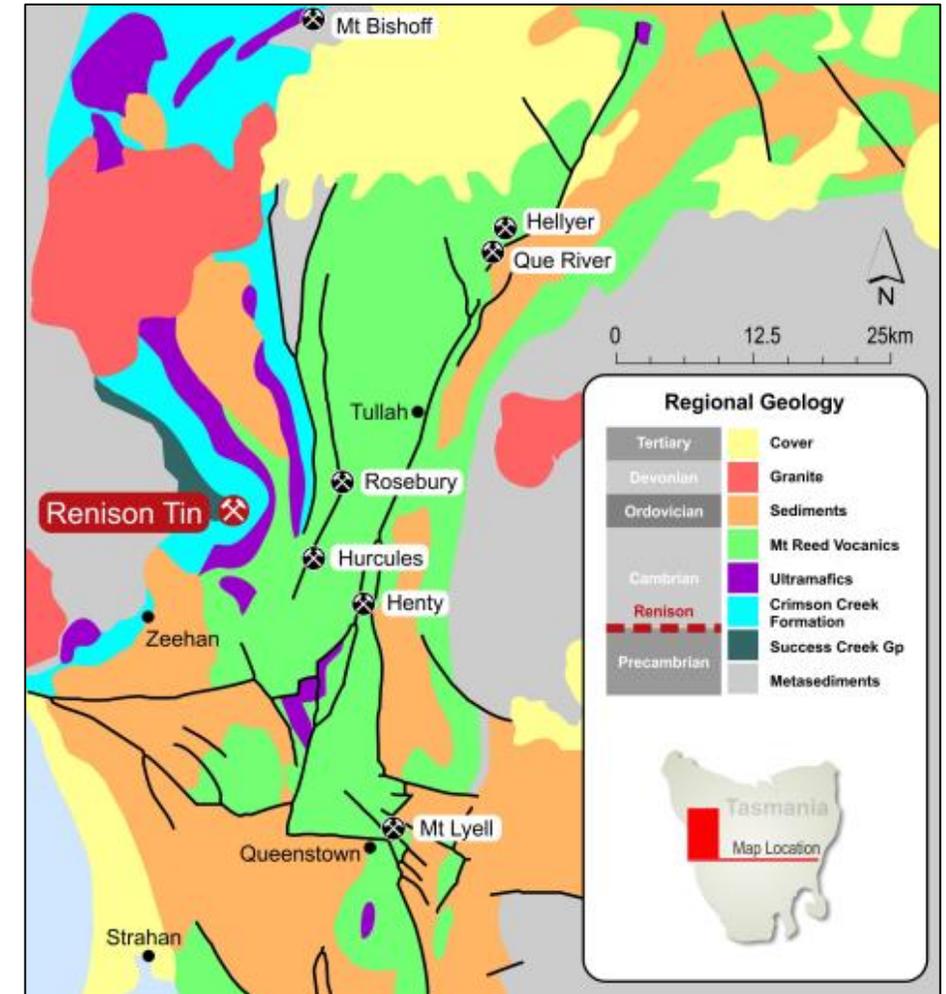


Optimising A World-Class Tin Mine  
(Awaking the Giant!)



# OPTIMISING A WORLD-CLASS TIN MINE

- MLX owns 50% of Renison (through Bluestone Mines Tasmania JV):
  - One of the worlds largest underground tin mines
  - Currently producing 7,500 – 8,000 tonnes/ year of tin in concentrate
  - Rentails project could contribute a further 5,400 tonnes of tin per year when commissioned#
  - MLX has operational oversight
- FY2019 focus on increasing operating efficiency and cash flow:
  - Increased mill throughput by 24% and mill feed grade by 22%
  - Increased year-on-year tin production by 5.7%
  - Increased Mineral Resources by 22% and grade by 14.5%
  - Increased tin metal in Ore Reserves by 20%
  - Maintained seven year mine life with further extensions likely



# STABLE PRODUCTION, OPPORTUNITY TO IMPROVE



## Stable Production Metrics

- A\$21.4M in site EBITDA during FY19 (MLX share)
- Realised sales price margin of 37% over AISC in June 2019 quarter
- Project capital for tailings dam and ore sorter during 2017-2019

## Significant Opportunities To Expand Production

- Area 5 will provide increase in mine grades
- Life of Mine plan will target ongoing ~1Mtpa mining rates
- Recovery opportunities being progressively implemented
- Step change recovery technology under investigation

Renison Tin Operations		2017/18 Actual	2018/19 Actual	2019/20 Guidance
Tonnes Mined	Mt	0.8	0.8	0.9
Grade Mined	% Sn	1.19	1.21	1.21
Production	kt Sn	6.7	7.1	8.0 – 8.5
Sustaining Capital	A\$M	22.0	16.1	24.1
AISC	A\$/t Sn	16,559	17,417	17,000-17,500
Project Capital	A\$M	30.2	8.6	9.5
Exploration	A\$M	-	0.5	1.5

All metrics are on a 100% Basis. MLX owns 50% of Renison

# FY2020 - KEY FOCUS AREAS

## Optimising the Mine Schedule To Increase Mine Grades

- Continued focus on resource definition drilling at high grade targets including Bell 50 & Leatherwood
  - Bell 50 recently returned a BMTJV record intersection of 30.1m @ 4.58% Sn within hole U6966\*
- Bringing the high-grade Area 5 resource into the schedule through completion of the Mining Study
  - Current Area 5 resource of 4.47Mt @ 1.91% Sn for 85,200 tonnes of tin (majority excluded from Reserves)#

## Increasing Mine Production

- The new crushing plant has increased throughput capacity due to rejection of low grade ore via the ore sorter
- Targeting an increase in mining rates to ~1Mtpa to optimise ore sorter tin recovery and mass rejection
- Commitment to maintain a seven year mine life

## Metallurgical Improvement Program

- Completed review has identified numerous opportunities to increase throughput, recovery and concentrate quality
  - Review and updating of control systems and online analytical infrastructure
  - Improved training and communication of standard operating parameters
  - Review of new technology applications to step change recovery performance

**Grade**



**Mine Output**



**Recovery**

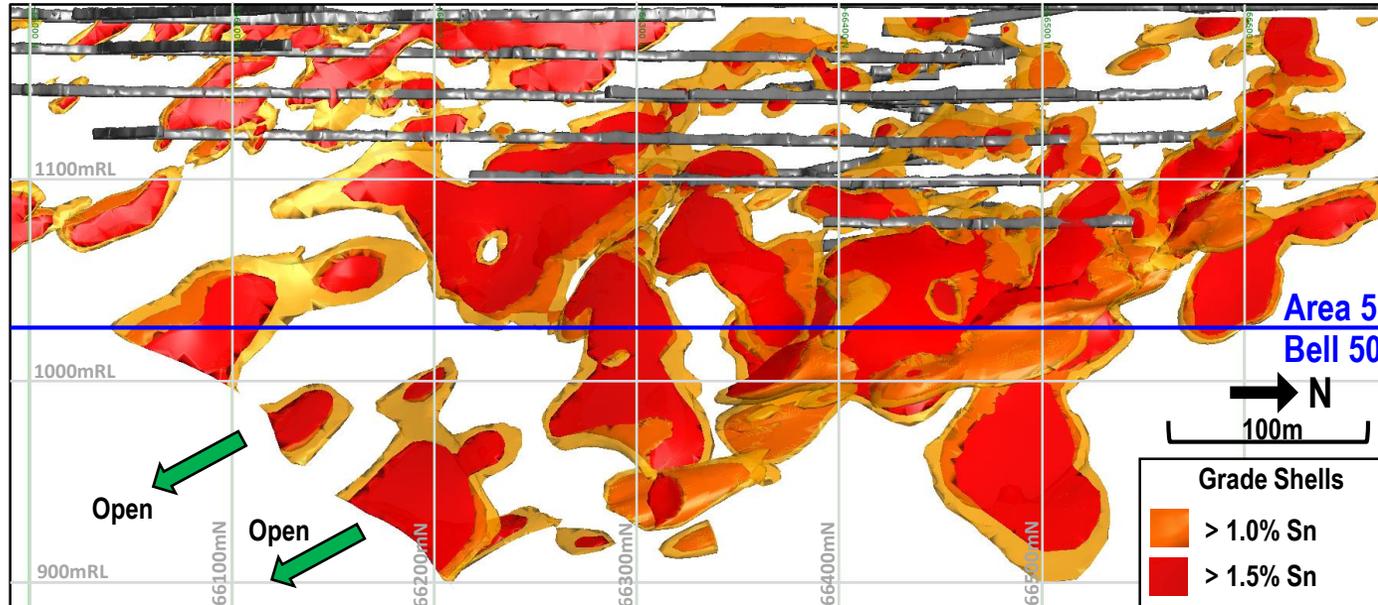


# AREA 5 OPTIMISATION STUDY

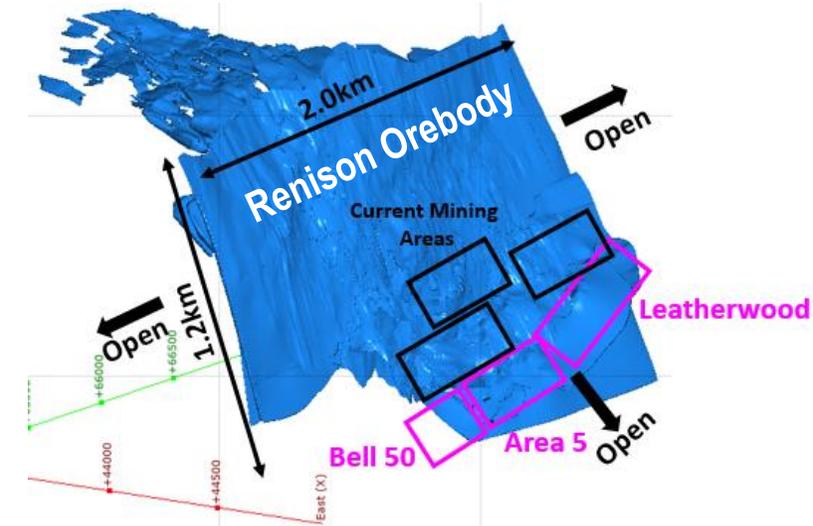


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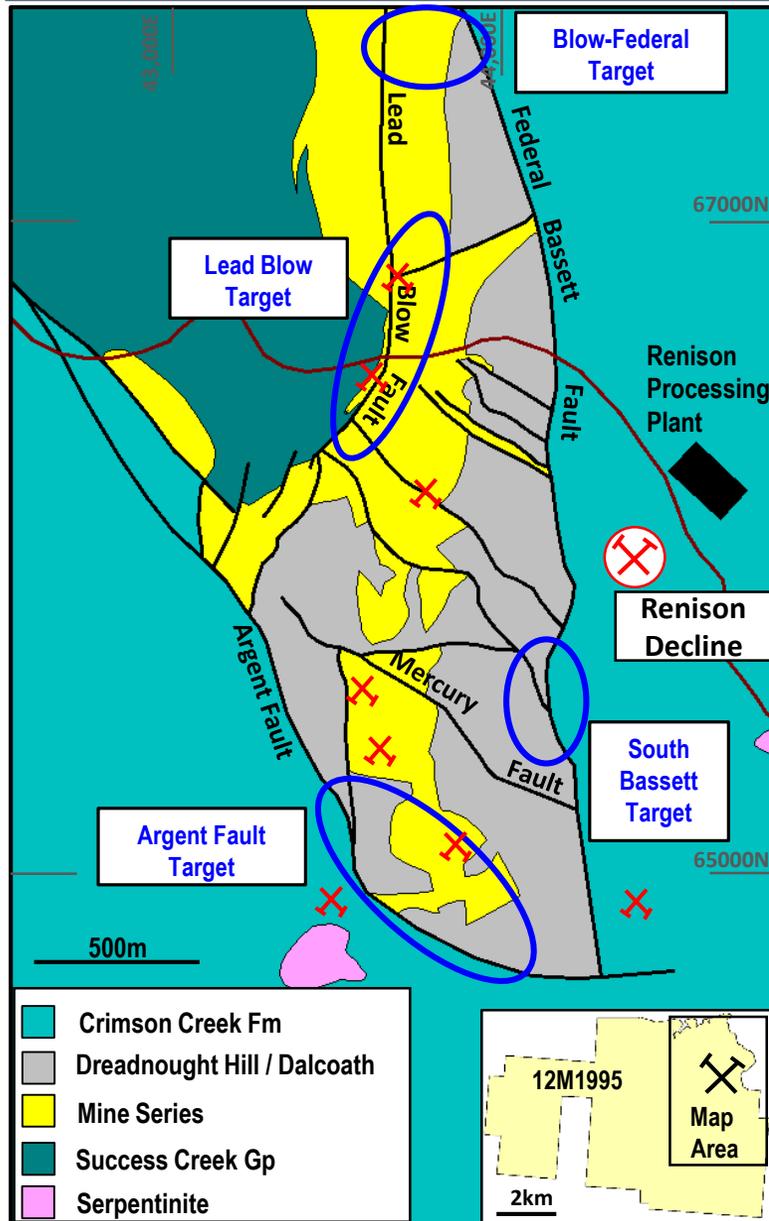
- New Area 5 high-grade resource defined during 2018/2019 - 4.47Mt at 1.91% Sn for 85,200 tonnes of contained tin<sup>#</sup>
- Represents a substantial opportunity to increase both mine production and mill feed grade
- Mining Optimisation Study underway with the aims of determining the mining plan and schedule to optimise value
- Completion expected during March 2020 quarter
- Preparatory work underway – decline at 1048mRL and Phase 1 ventilation improvement works largely completed
- Likely 200m down-plunge extension of Area 5 mineralisation into the new Bell 50 zone defined by recent drilling



Area 5 – Bell 50 Longsection Looking West Showing Tin Grade Shell Interpolation



# REGIONAL EXPLORATION – TARGETING A NEW TIN MINE

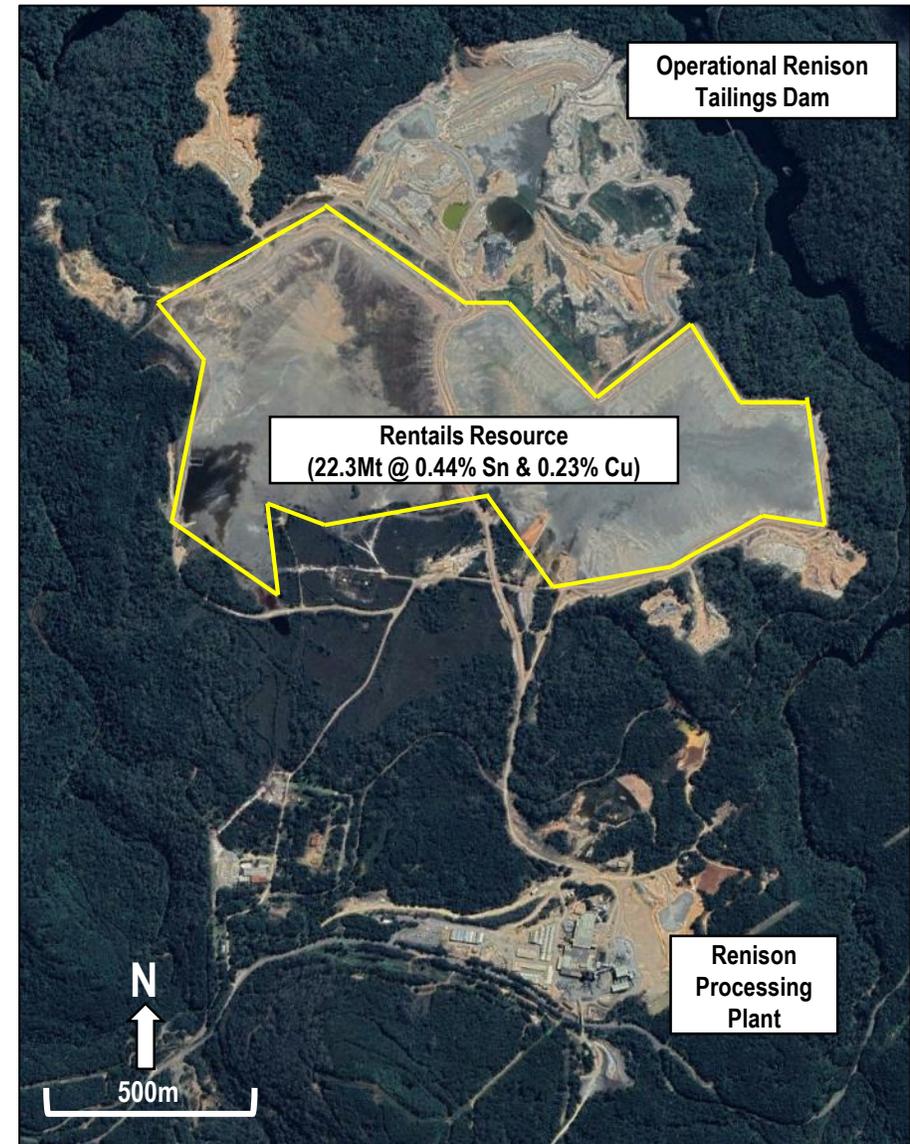


- Surface exploration recently recommenced at Renison after a 5 year hiatus
- Focus is on “near-mine” target identification, with subsequent work to be undertaken across the under-explored 45km<sup>2</sup> Mining Lease
- Priority near-mine targets have been selected and are currently being tested by a combination of down-hole electromagnetic (DHEM) geophysical surveying and lithogeochemistry
- Follow-up drill testing of generated DHEM anomalies is expected during 2019-2020 summer



# RENTAILS – A POTENTIAL STEP CHANGE IN TIN PRODUCTION

- Rentails project is investigating the options to re-process the Renison tailings which comprise an Ore Reserve of 22.3Mt at 0.44% Sn and 0.23% Cu (99Kt of Sn metal and 51Kt of Cu metal)
- Represents one of the largest single resources of tin available in Australia today
- DFS completed in 2009 (refer to announcement dated 4 July 2017)
  - 11 year LOM at processing rate of 2Mtpa
  - Annual production of ~5,400t Sn in a high grade tin fume product and 2,200t Cu in a high grade copper matte
- Currently working on the Development Proposal and Environmental Management Plan with the Tasmanian Environment Protection Authority



# NIFTY COPPER OPERATIONS

Renovating & Developing a Significant Copper Mine



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# EXPLORATION, RENOVATION, DEVELOPMENT & PRODUCTION



Acquired from Aditya Birla in late 2016

- Substantial infrastructure in place and geological upside predicted
- Operation was heading towards closure
- Maintenance being neglected and poor operating environment evident

Geological potential being unlocked

- Basis of acquisition was that the resource was open and poorly defined
- Over 85,000m of drilling completed to date
- Resources expanded and upgraded outside the Central Mining area

Focus is now on developing the “New Nifty”

- Rapidly developing into new mining areas
- Development will progressively allow increasing production rates

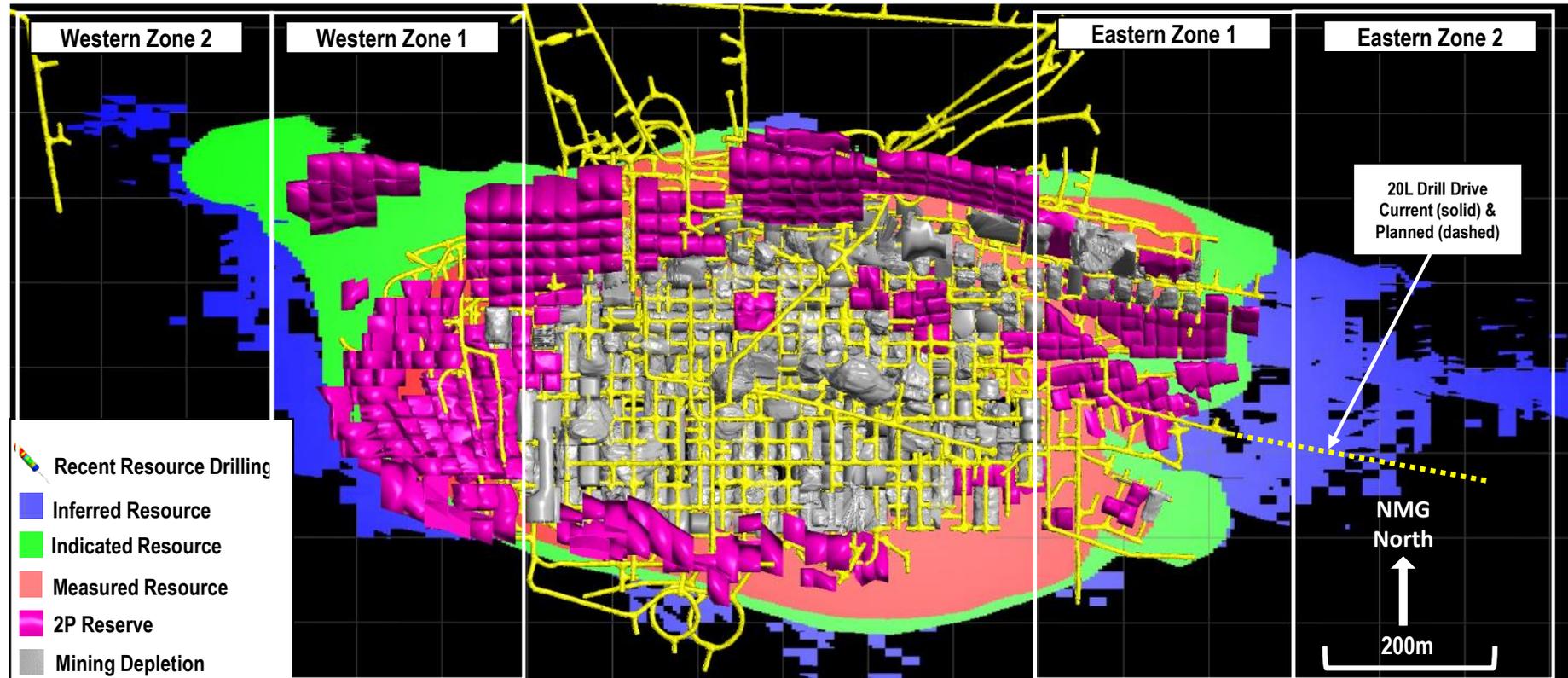
All the key pieces are in place

- Large copper resource providing long mine life
- Increasing developed stocks will lead to increased production
- Resolution of key operational constraints (eg ventilation & paste) well advanced



# GEOLOGICAL POTENTIAL UNLOCKED

- Drilling to date has increased resource confidence resulting in a 65% increase in Ore Reserves
- Investigation of additional Ore Reserve expansion opportunities underway – eg Southeast Region
- Nifty Resource remains open and/or poorly defined to the east and west with dedicated drill drives in development

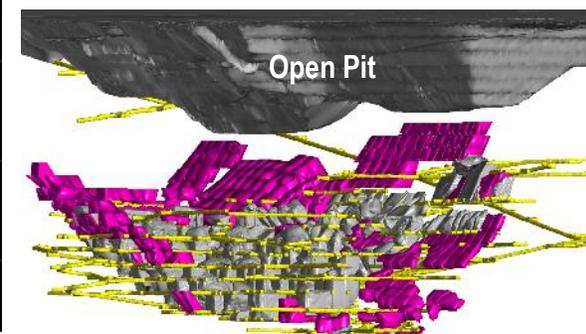


**Nifty Sulphide Resource – 31 March 2019**

Mineral Resource Category	Mt	Grade % Cu	Copper tonnes
Measured	23.43	1.66%	388,100
Indicated	7.12	1.32%	94,300
Inferred	5.73	1.10%	63,100
<b>Total</b>	<b>36.28</b>	<b>1.50%</b>	<b>545,600</b>

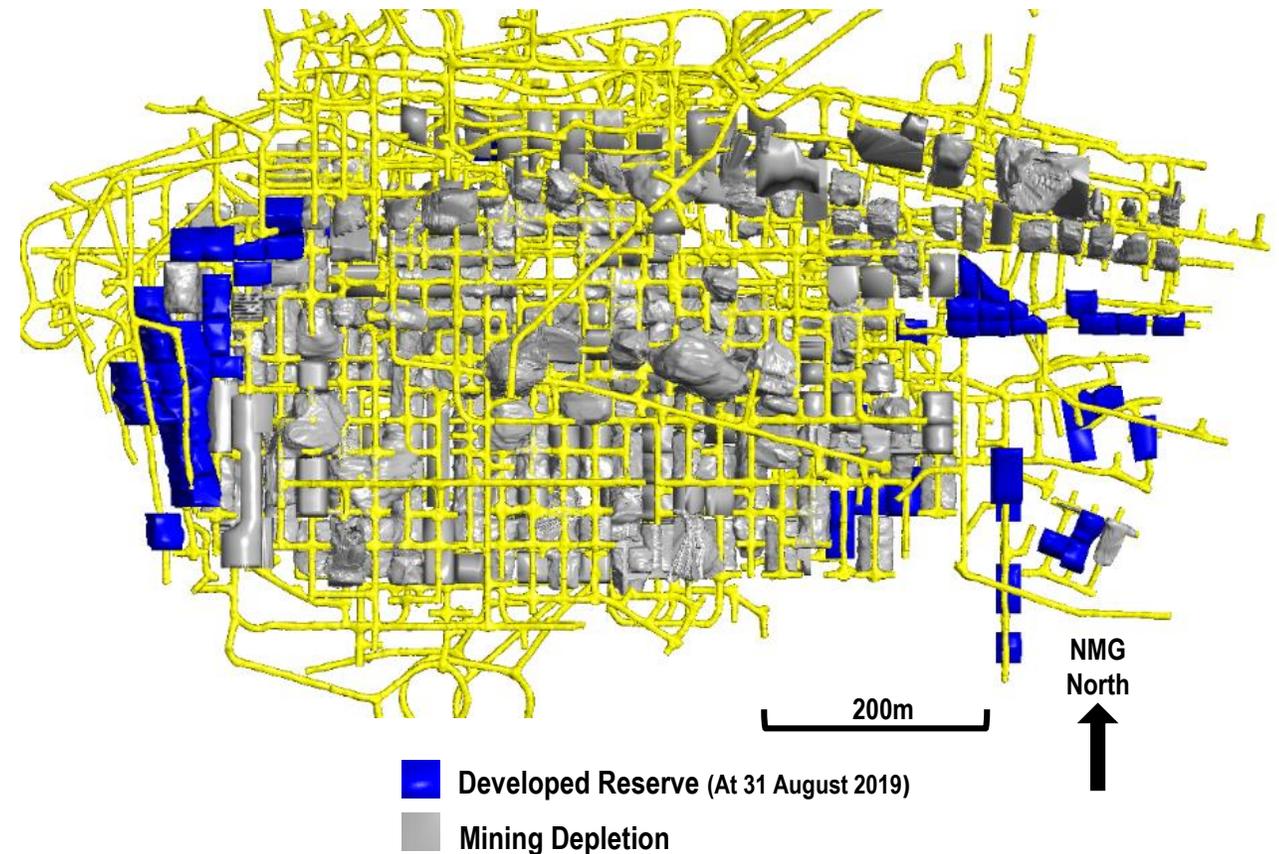
**Nifty Sulphide Reserve – 31 March 2019**

Ore Reserve Category	Ore Mt	Grade % Cu	Copper tonnes
Proved	9.57	1.45%	138,300
Probable	1.53	1.50%	22,900
<b>Total</b>	<b>11.10</b>	<b>1.45%</b>	<b>161,200</b>



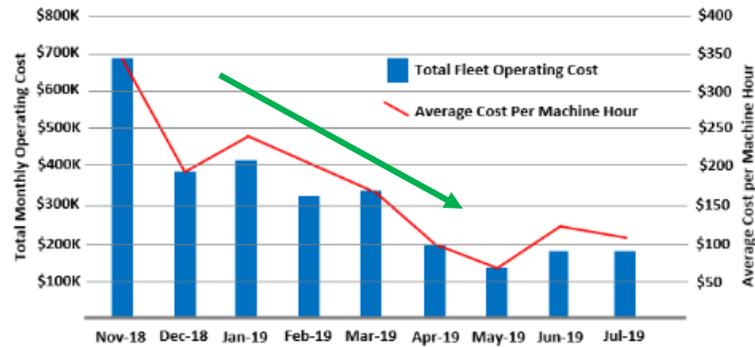
# AGGRESSIVELY DEVELOPING INTO NEW MINING AREAS

- New mining area development is 10% ahead of schedule:
  - 2,940m completed since May 2019
  - Record 720m in July 2019
- Priority development headings include:
  - Western and eastern ends of Region 4 to provide stoping access
  - Region 5 to provide drilling access into the Northeast Limb
- Developed stocks currently 1.4Mt @ 1.46% Cu for 20,600 tonnes of copper, 78% of which is outside of the Central Mining area



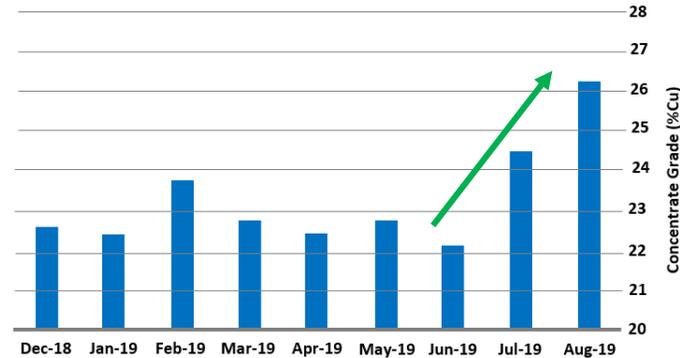
# INCREASING OPERATIONAL EFFICIENCY

## Example 1 - Efficient Fleet Utilisation



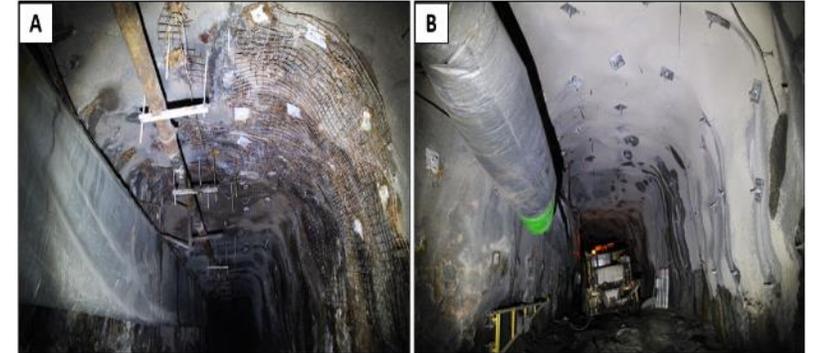
- Pre-Reset the mine operated a fleet of seven underground haul trucks with low average utilisation
- Analysis identified that at current production rates only three trucks were needed, increasing to an anticipated maximum of five trucks
- Three trucks have been put on care & maintenance representing significant reductions in operating and maintenance costs
- Similar reductions have been made in the underground loader fleet (reduced by one unit), with similar cost reductions

## Example 2 – Metallurgical Improvements



- Reset review identified significant operational improvement opportunities at the processing plant
- The plant is now operating on a 14/14 campaign basis with milling rates of up to 9,000 tonnes per day regularly achieved
- The move to campaign milling resulted in reduced fixed costs and increased operational efficiency
- Concentrate grade has increased from an average 22% - 23% Cu to +26% Cu through simple operational focus and training
  - Each 1% increase in concentrate grade generates ~A\$1.0 million annual saving in operating costs

## Example 3 – Upgrading Key Infrastructure



- Reset review identified paste filling infrastructure reliability and capacity as a potential constraining issue
- Paste reliability is being addressed through rehabilitation of underground delivery infrastructure (Photo's A & B above)
- Introducing dry tailings reclaim to achieve continual paste generation capacity & increased filling rates.(Photo C below)



# RESET PLAN – A NEW BASELINE

On track for Phase 1 goal of building to a 2Mtpa mining rate during the March 2020 quarter

	Reset Plan Phase 1	Progress to date
✓	1 <b>Development of New Mining Areas</b>	<ul style="list-style-type: none"> <li>▪ 10% ahead of schedule (new mining areas to the east and west)</li> <li>▪ 2,940m completed since May 2019</li> <li>▪ Substantial increase in developed stocks for future production</li> </ul>
✓	2 <b>Expanding Resources &amp; Reserves</b>	<ul style="list-style-type: none"> <li>▪ Extensive copper resources identified both east and west of the Central Zone</li> <li>▪ 90% of the Ore Reserve is now outside of the historical Central Zone</li> <li>▪ Drilling continues to identify potential expansion opportunities</li> </ul>
✓	3 <b>Investment in Infrastructure</b>	<ul style="list-style-type: none"> <li>▪ Infrastructure issues no longer an impediment to production (de-bottlenecked)</li> <li>▪ Work completed for lower capital expenditure than originally planned</li> <li>▪ Some additional work required to further improve ventilation circuits</li> </ul>
✓	4 <b>Reducing Operating Costs</b>	<ul style="list-style-type: none"> <li>▪ Cost reduction opportunities identified across the site and in progress</li> <li>▪ Improvements in fleet efficiency (reduction in fleet size)</li> <li>▪ Campaign milling (improved milling rates, output and operational efficiency)</li> </ul>
✓	5 <b>Improvement in Workforce Culture &amp; Safety</b>	<ul style="list-style-type: none"> <li>▪ Workforce is fully engaged and committed to delivering the Reset Plan</li> <li>▪ Improved planning, ownership of outcomes and operational efficiency</li> <li>▪ Substantially improved safety performance and improving reputation</li> </ul>

# ON TRACK FOR RESET PLAN MILESTONES

## Nifty Outlook

- On track to achieve 2Mtpa mining rate during March Quarter 2020
- Mine output to remain flat for September Quarter 2019, with improvement commencing in the December Quarter 2019
  - Production is a ‘lag indicator’
  - All leading indicators are positive and indicate momentum is building
  - Resource definition drilling continues to deliver encouraging results
  - Significant ‘developed’ tonnage in the mine and stoping fronts will progressively start to increase
  - Infrastructure bottlenecks largely eliminated
- Working capital cycle range at Nifty is A\$0M to A\$25M
- Further update on progress in December Quarter 2019

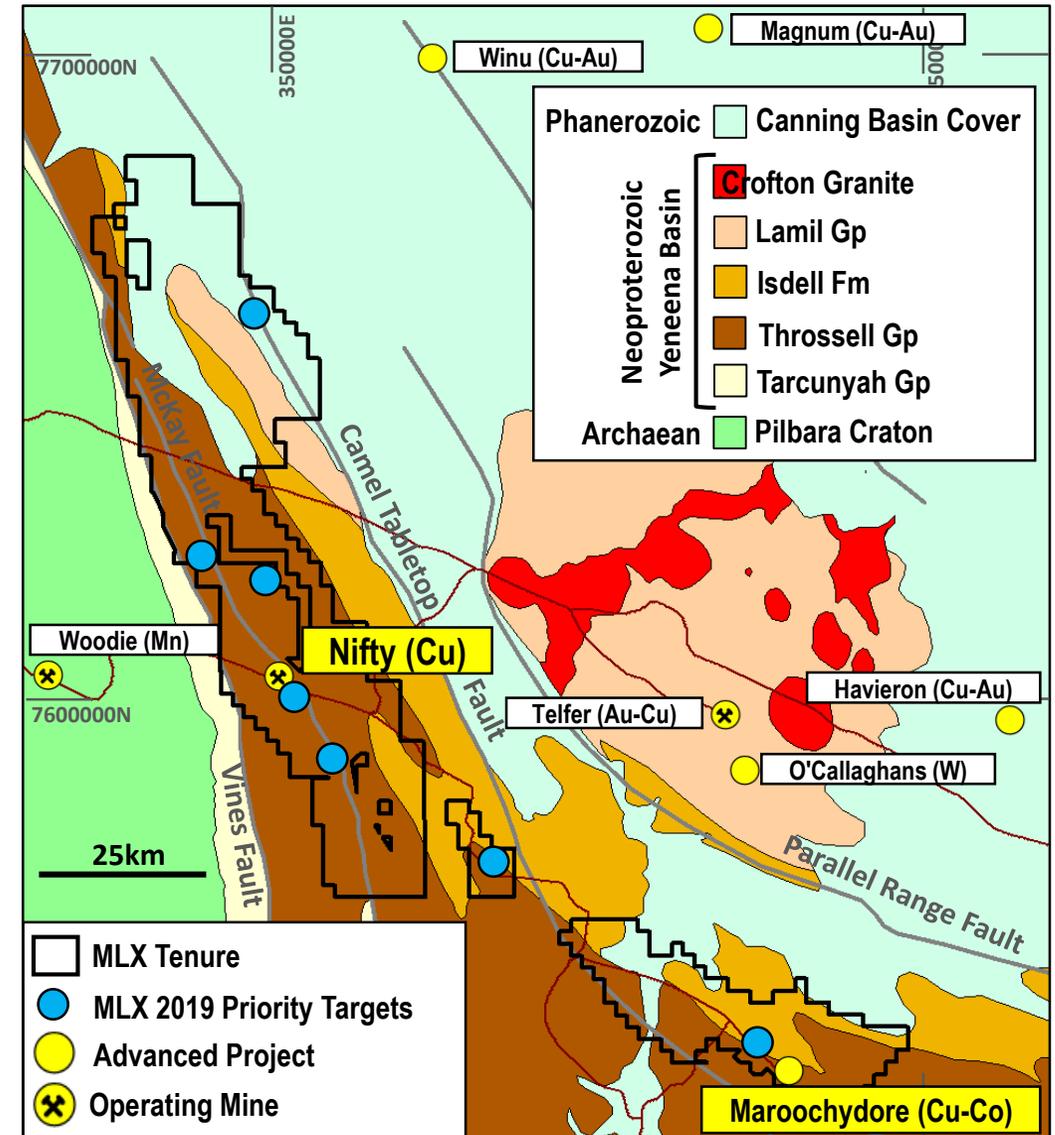
Nifty Copper Operations		2019/20		2020/21		2021/22	
		Reset	Revised	Reset	Revised	Reset	Revised
Tonnes Mined	Mt	1.9	1.6	2.4	2.4	2.5	2.5
Grade Mined	% Cu	1.48	1.40	1.48	1.45	1.48	1.45
Production	kt Cu	26.5	21.7	33.7	33.0	34.7	34.0
Sustaining Capital	A\$M	33.0	19.6	39.7	41.3	41.3	44.4
Resource Definition	A\$M	1.5	1.5	2.0	2.0	2.0	2.0
AISC	A\$/t Cu	7,200-7,700	8,000-8,500	6,500-7,000	6,500-7,000	6,400-6,900	6,500-7,000
Project Capital	A\$M	17.6	17.6	5.3	5.3	4.1	4.1
Exploration	A\$M	2.0	5.3	7.0	7.0	7.0	7.0

# PATERSON PROVINCE EXPLORATION



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- MLX control ~3,000km<sup>2</sup> of the highly prospective Paterson Province
- Recent RioTinto Winu copper-gold discovery highlights province potential
- MLX tenements are highly prospective for Cu, Co, Zn and Mn
- Due to extensive sand cover, exploration maturity within the province is low to moderate at best
- Rigorous data compilation and analysis has identified a pipeline of over 25 priority targets
- 7 targets selected for testing during 2019 with drilling underway



# WINGELLINA NICKEL – COBALT PROJECT



Massive Latent Value



# WINGELLINA NICKEL & COBALT DEVELOPMENT PROJECT

## Tier 1 Strategic and scalable asset

- ⇒ Globally significant nickel-cobalt project hosting 1.9Mt of contained nickel and 154,000t of contained cobalt
- ⇒ Mineralisation is limonite– ideal for high pressure acid leach (HPAL)

## Stable jurisdiction

- ⇒ Can meet increasing global demand for responsibly sourced battery metals
- ⇒ Environmental Protection Agency (EPA) and Native Title approvals in place
- ⇒ Potential to attract Federal and State support for infrastructure

## Globally significant supply of battery metals

- ⇒ Ore Reserve supporting production of 40,000tpa of nickel and 3,000tpa of cobalt for 40 years
- ⇒ Multiple final product options including nickel sulphate and cobalt sulphate for battery feedstock

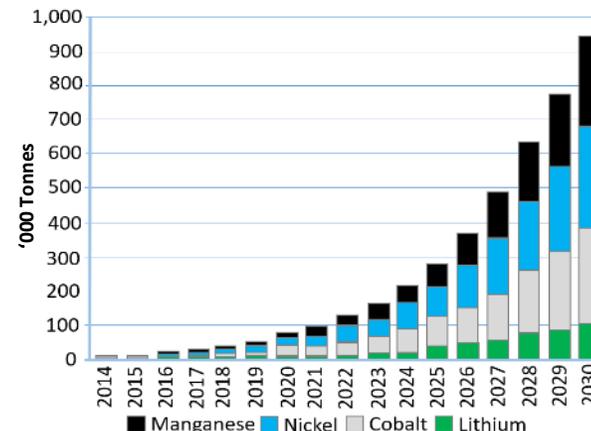
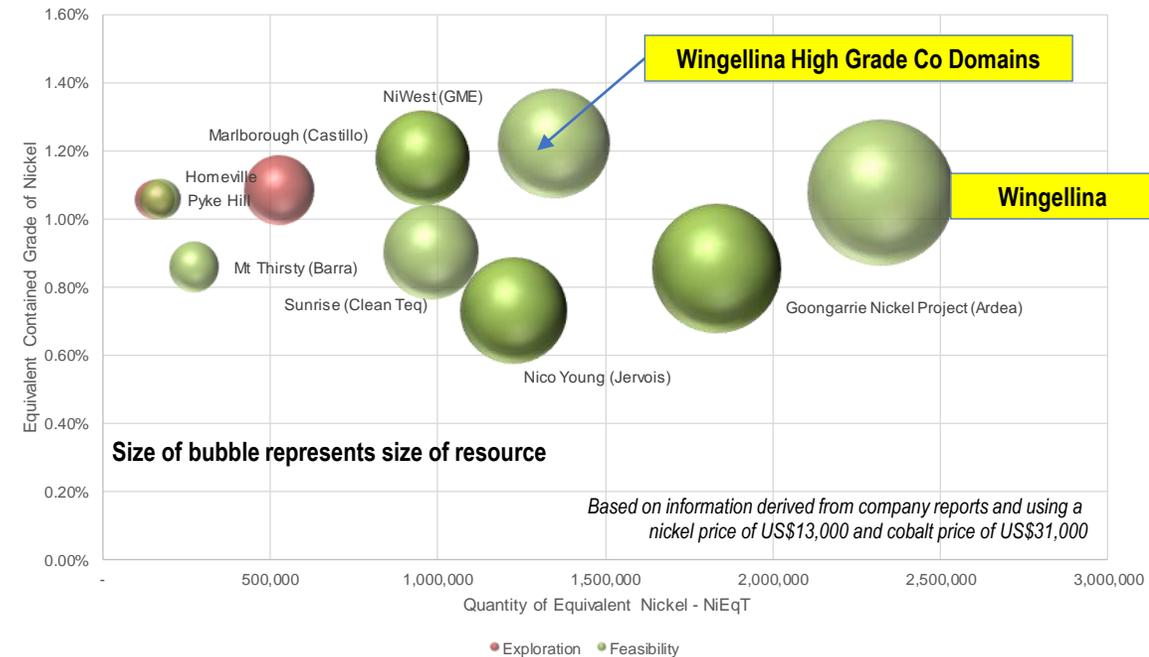
## Robust financials

- ⇒ NPV<sub>8%</sub> of A\$3.4Bn with average annual EBITDA of A\$568M<sup>#</sup>
- ⇒ High grade start-up pits subsequently defined for the first 10 years delivering accelerated payback

## Next steps

- ⇒ Detailed design and finalisation of infrastructure corridors
- ⇒ Commence search for strategic partner

## Australian Undeveloped Nickel Laterite Deposits



## Battery metals – The (Car) Keys That Will Unlock Wingellina

- Consensus forecasts strong growth in nickel and cobalt sulphate demand from EV revolution and move to utility scale battery static storage systems
- Bench-scale testwork on Wingellina ore has produced high quality nickel sulphate & cobalt sulphate



# Appendix

# MINERAL RESOURCES & ORE RESERVES (NIFTY)

## Nifty Copper Operations – Mineral Resource Statement At 31 March 2019

Deposit	Mineral Resource Category <sup>1</sup>	Mt <sup>2</sup>	Grade %Cu	Copper Tonnes
Nifty Sulphide <sup>3</sup>	Measured	23.43	1.66%	388,100
	Indicated	7.12	1.32%	94,300
	Inferred	5.73	1.10%	63,100
	<b>Total</b>	<b>36.28</b>	<b>1.50%</b>	<b>545,600</b>
Nifty Oxide <sup>4</sup>	Measured	1.43	0.91%	13,000
	Indicated	1.22	0.86%	10,000
	Inferred	1.68	0.83%	14,000
	<b>Total</b>	<b>4.33</b>	<b>0.86%</b>	<b>37,000</b>
Nifty Heap Leach <sup>5</sup>	Measured	-	-	-
	Indicated	2.85	0.75%	20,000
	Inferred	0.46	0.66%	3,000
	<b>Total</b>	<b>3.31</b>	<b>0.74%</b>	<b>23,000</b>
<b>Total Nifty Operations</b>	Measured	24.86	1.61%	401,100
	Indicated	11.19	1.11%	124,300
	Inferred	7.87	1.02	80,100
	<b>Total</b>	<b>43.92</b>	<b>1.38%</b>	<b>605,600</b>

1. Mineral Resources are reported inclusive of Mineral Resources modified to produce Ore Reserves
2. Tonnes are reported as million tonnes (Mt) and rounded to the nearest 10,000; Cu tonnes are rounded to the nearest 100 tonnes; rounding may result in some slight apparent discrepancies in totals.
3. Cut-off grade of 0.75% Cu
4. Cut-off grade of 0.40% Cu
5. Cut-off grade of 0.5% Cu

## Nifty Copper Operations – Ore Reserve Statement At 31 March 2019

Deposit	Mineral Resource Category <sup>1</sup>	Mt <sup>2</sup>	Grade %Cu	Copper Tonnes
Nifty Sulphide	Proved	9.57	1.45%	138,300
	Probable	1.53	1.50%	22,900
	<b>Total</b>	<b>11.10</b>	<b>1.45%</b>	<b>161,200</b>

1. The Ore Reserve is based on the Nifty Sulphide Mineral Resources estimate at 31 March 2019, with applied modifying factors, a cut-off grade of 1.00%Cu and using a copper price of US\$5,652/t Cu at an assumed exchange rate of USD/AUD 0.72 for a price of AUD\$7,850/t Cu
2. Tonnes are reported as million tonnes (Mt) and rounded to the nearest 10,000; Cu tonnes are rounded to the nearest 100 tonnes; rounding may result in some slight apparent discrepancies in totals.

# MINERAL RESOURCES (MAROOCHYDORE)

## Maroochydore Copper Prospect – Mineral Resource Statement At 31 March 2016

Deposit	Mineral Resource Category	Mt <sup>1</sup>	Copper		Cobalt	
			Grade % Cu	Copper tonnes <sup>2</sup>	Grade ppm Co	Cobalt tonnes <sup>2</sup>
Oxide <sup>3</sup>	Measured	-	-	-	-	-
	Indicated	40.80	0.92%	375,000	388	15,800
	Inferred	2.40	0.81%	19,000	451	1,100
	<b>Total</b>	<b>43.20</b>	<b>0.91%</b>	<b>394,000</b>	<b>391</b>	<b>16,900</b>
Sulphide <sup>4</sup>	Measured	-	-	-	-	-
	Indicated	-	-	-	-	-
	Inferred	5.43	1.66%	90,000	292	1,600
	<b>Total</b>	<b>5.43</b>	<b>1.66%</b>	<b>90,000</b>	<b>292</b>	<b>1,600</b>
<b>TOTAL<sup>5</sup> MAROOCHYDORE</b>	Measured	-	-	-	-	-
	Indicated	40.80	0.92%	375,000	388	15,800
	Inferred	7.83	1.40%	110,000	341	2,700
	<b>Total</b>	<b>48.63</b>	<b>1.00%</b>	<b>486,000</b>	<b>380</b>	<b>18,500</b>

1. Tonnes are reported as million tonnes (Mt) and rounded to nearest 10,000;
2. Cu tonnes are rounded to nearest 1,000 tonnes; Co tonnes are rounded to the nearest 100 tonnes;
3. Cut-off Grade of 0.5% Cu;
4. Cut-off Grade of 1.1% Cu;
5. Rounding may result in some slight apparent discrepancies in totals.

# MINERAL RESOURCES & ORE RESERVES (RENISON)

## Renison Tin Operations - Mineral Resource Statement At 31 March 2019 (MLX 50% Share)

Deposit	Mineral Resource Category <sup>1</sup>	Tin			Copper		
		'000 tonnes <sup>2</sup>	Grade % Sn	Tin tonnes <sup>2</sup>	'000 tonnes	Grade % Cu	Copper tonnes <sup>2</sup>
Renison Bell <sup>3</sup>	Measured	1,550	1.62	25,100	1,550	0.35	5,500
	Indicated	13,520	1.51	203,700	13,520	0.19	25,000
	Inferred	2,470	1.38	34,200	2,470	0.17	4,300
	<b>Total</b>	<b>17,550</b>	<b>1.50</b>	<b>263,000</b>	<b>17,550</b>	<b>0.20</b>	<b>34,800</b>
Mt Bischoff <sup>4</sup>	Measured	-	-	-	-	-	-
	Indicated	970	0.59	5,700	-	-	-
	Inferred	700	0.47	3,300	-	-	-
	<b>Total</b>	<b>1,670</b>	<b>0.54</b>	<b>9,000</b>	<b>-</b>	<b>-</b>	<b>-</b>
Rentails Project <sup>5,6</sup>	Measured	23,890	0.44	104,400	23,900	0.22	52,700
	Indicated	-	-	-	-	-	-
	Inferred	-	-	-	-	-	-
	<b>Total</b>	<b>23,890</b>	<b>0.44</b>	<b>104,400</b>	<b>23,900</b>	<b>0.22</b>	<b>52,700</b>
<b>TOTAL</b>	Measured	25,440	0.51	129,500	25,450	0.23	58,200
	Indicated	14,490	1.45	209,400	13,520	0.19	25,000
	Inferred	3,170	1.18	37,500	2,470	0.17	4,300
	<b>Total</b>	<b>43,100</b>	<b>0.87</b>	<b>376,400</b>	<b>41,450</b>	<b>0.21</b>	<b>87,500</b>

1. Mineral Resources are reported inclusive of Mineral Resources modified to produce the Ore Reserve;
2. Tonnes are reported as kilo tonnes ('000t) and rounded to the nearest 10,000; Sn and Cu tonnes are rounded to the nearest 100 tonnes; rounding may result in some slight apparent discrepancies in totals.
3. Cut-off grade of 0.7% Sn.
4. Cut-off Grade of 0.5% Sn.
5. Cut-off Grade of 0.0% Sn.
6. The Rentails Mineral Resource is at 31 May 2018.

## Renison Tin Operations - Ore Reserve Statement At 31 March 2019 (MLX 50% Share)

Project	Ore Reserve Category	Tin			Copper		
		Ore '000 tonnes	Grade % Sn	Tin tonnes	Ore '000 tonnes	Grade % Cu	Copper tonnes
Renison Bell <sup>1</sup>	Proved	1,260	1.28%	16,138	1,260	0.32%	3,989
	Probable	6,838	0.97%	66,222	6,838	0.20%	13,389
	<b>Total</b>	<b>8,098</b>	<b>1.02%</b>	<b>82,360</b>	<b>8,098</b>	<b>0.21%</b>	<b>17,377</b>
Rentails <sup>2</sup>	Proved	-	-	-	-	-	-
	Probable	22,313	0.44%	98,930	22,313	0.23%	50,668
	<b>Total</b>	<b>22,313</b>	<b>0.44%</b>	<b>98,930</b>	<b>22,313</b>	<b>0.23%</b>	<b>50,668</b>
<b>TOTAL</b>	Proved	1,260	1.28%	16,138	1,260	0.32%	3,989
	Probable	29,151	0.57%	165,152	29,151	0.22%	64,057
	<b>Total</b>	<b>30,411</b>	<b>0.60%</b>	<b>181,290</b>	<b>30,411</b>	<b>0.22%</b>	<b>68,045</b>

1. The Renison Bell Ore Reserve is based on the Mineral Resource estimate at 31 March 2019 (refer to ASX Announcement of 24 May 2019) with applied modifying factors, at a cut-off grade of 0.7% Sn.
2. The Renison Tailings Retreatment Project (Rentails) Ore Reserve is unchanged from that reported as at 31 March 2017 (refer to ASX Announcement of 28 August 2017), at a cut-off grade of 0.0% Sn.

# MINERAL RESOURCES & ORE RESERVES (CENTRAL MUSGRAVE)



## Central Musgrave Project - Mineral Resource Statement At 30 June 2016

Deposit	Mineral	Mt <sup>2</sup>	Nickel		Cobalt	
			Grade	Nickel	Grade	Cobalt
Wingellina (cut-off 0.50% Ni)	Measured	37.6	0.98%	368	0.07%	28.0
	Indicated	130.9	0.91%	1,193	0.07%	94.6
	Inferred	14.1	0.87%	122	0.06%	9.1
	<b>Total</b>	<b>182.6</b>	<b>0.92%</b>	<b>1,684</b>	<b>0.07%</b>	<b>131.7</b>
Claude Hills (cut-off 0.50% Ni)	Measured	-	-	-	-	-
	Indicated	-	-	-	-	-
	Inferred	33.3	0.81%	270	0.07%	22.7
	<b>Total</b>	<b>33.3</b>	<b>0.81%</b>	<b>270</b>	<b>0.07%</b>	<b>22.7</b>
Total Central Musgrave Project	Measured	37.6	0.98%	368	0.07%	28.0
	Indicated	130.9	0.91%	1,193	0.07%	94.6
	Inferred	47.4	0.83%	392	0.07%	31.8
	<b>Total</b>	<b>215.8</b>	<b>0.91%</b>	<b>1,953</b>	<b>0.07%</b>	<b>154.4</b>

1. Mineral Resources are reported inclusive of Mineral Resources modified to produce the Ore Reserve;
2. Tonnes are reported as million tonnes (Mt) and rounded to nearest 100,000; nickel tonnes are reported as thousand tonnes (kt) and rounded to the nearest 1000 tonnes; cobalt tonnes are reported as thousand tonnes (kt) and rounded to the nearest 100 tonnes; rounding may result in some slight apparent discrepancies in totals.

## Central Musgrave Project - Ore Reserve Statement At 30 June 2016

Project	Ore Reserve Category <sup>1</sup>	Ore Mt <sup>2</sup>	Nickel		Cobalt	
			Grade % Ni	Nickel kt Ni <sup>2</sup>	Grade % Co	Cobalt kt Co <sup>2</sup>
Wingellina	Proved	-	-	-	-	-
	Probable	168.4	0.93%	1,561	0.07%	122.6
	<b>Total<sup>2</sup></b>	<b>168.4</b>	<b>0.93%</b>	<b>1,561</b>	<b>0.07%</b>	<b>122.6</b>

1. The Ore Reserve is based on the Wingellina Mineral Resource estimate at 30 June 2016 with applied modifying factors, at a cut-off grade of 0.5% Ni;
2. Tonnes are reported as million tonnes (Mt) and rounded to nearest 100,000; nickel tonnes are reported as thousand tonnes (kt) and rounded to the nearest 1000 tonnes; cobalt tonnes are reported as thousand tonnes (kt) and rounded to the nearest 100 tonnes; rounding may result in some slight apparent discrepancies in totals.

# APPENDIX – COMPETENT PERSONS STATEMENTS



## Acceptance

By attending an investor presentation or briefing, or accepting, accessing or reviewing this Presentation you acknowledge and agree to the terms set out in the Cautionary Statement and Disclaimer.

## JORC Compliance Statement - Competent Persons Statements

The information in this report that relates to Exploration Results, Mineral Resources and Ore Reserves is based on information compiled by Mr Simon Rigby B.Sc. (Hons) MAIG, Mr Jake Russell B.Sc. (Hons) MAIG, Mr Kim Kremer BSc MAIG, Mr Campbell Baird B Engineering (Mining) Master of International Finance, AusIMM, Mr Mark Recklies B Engineering (Mining), AusIMM and Mr Colin Carter B.Sc. (Hons), M.Sc. (Econ. Geol), AusIMM. All have sufficient experience which is relevant to the styles of mineralisation and types of deposit under consideration and to the activities which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC 2012)”. All consent to the inclusion in this report of the matters based on his information in the form and context in which it appears. Mr Russell is a contractor to the Company and all other Competent Persons are full time senior executives of the Company and are eligible to, and may participate in short-term and long-term incentive plans of the Company as disclosed in its annual reports and disclosure documents.

## Exploration and Production Target Statements

The information in this report that relates to exploration targets refers to targets that are conceptual in nature, where there has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource. Production targets and mine designs are currently conceptual in nature.

## Currency and Definitions

All currency in the presentation is in AU\$ unless stated otherwise.

EBITDA is earnings before interest, tax, depreciation and amortisation and is an unaudited non IFRS measure.

C1 Cash Cost (“C1”) represents the cost for mining, processing and administration after accounting for movements in inventory (predominantly stockpiles). It does not include proceeds from by-product credits and excludes the cost of royalties and capital costs for exploration, mine development and plant and equipment.

All-in-Sustaining Cost (“AISC”) is made up of the C1 cash cost plus royalty expense, sustaining capital expense and general corporate and administration expenses. AISC is an unaudited Non-IFRS measure.

All-in Cost (“AIC”) is made up of AISC plus growth (major project) capital and exploration discovery expenditure. AIC is an unaudited non-IFRS measure..

Cu refers to copper

Sn refers to tin

Ni refers to nickel

Co refers to cobalt

# APPENDIX – COMPETENT PERSONS STATEMENTS

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## **Competent Person Statement – Nifty Sulphide Ore Reserve**

The information in this announcement relating to the Nifty Sulphide Ore Reserve has been extracted from Metals X's announcement released on 28 August 2019 and is available to view at <http://www.metalsx.com.au>. The Ore Reserve estimates are at 31 March 2019 and were reported in accordance with JORC Code 2012 guidelines. Metals X confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. Metals X confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original market announcement.

## **Competent Person Statement – Renison Tin Operations Ore Reserve**

The information in this announcement relating to the Ore Reserves of the Renison Tin Operations has been extracted from Metals X's announcement released on 20 August 2019 and is available to view at <http://www.metalsx.com.au>. The Ore Reserve estimate is at 31 March 2019 and was reported in accordance with JORC Code 2012 guidelines. Metals X confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. Metals X confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original market announcement.

## **Competent Person Statement – Wingellina Nickel-Cobalt Project Ore Reserves**

The information in this announcement relating to the Ore Reserves of the Wingellina Project has been extracted from Metals X's Annual Mineral Resources and Ore Reserves Statements released on 18 August 2016 and is available to view at <http://www.metalsx.com.au>. The Ore Reserve estimate is at 30 June 2016 and was reported in accordance with JORC Code 2012 guidelines. Metals X confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. Metals X confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original market announcement.

# APPENDIX – COMPETENT PERSONS STATEMENTS



## **Competent Person Statement – Nifty Sulphide Mineral Resource**

The information in this announcement that relates to Mineral Resources for the Nifty Sulphide Mineral Resource has been extracted from Metals X's announcement released on 28 August 2019 and is available to view at <http://www.metalsx.com.au>. The Mineral Resource estimate is at 31 March 2019 and was reported in accordance with JORC Code 2012 guidelines. Metals X confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. Metals X confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original market announcement. The Measured and Indicated Mineral Resources tabled above are inclusive of those Mineral Resources modified to produce the Ore Reserve. In all Resources tables, significant figures do not imply precision. Figures are rounded according to JORC Code guidelines.

## **Competent Person Statement – Nifty Oxide, Nifty Heap Leach, Maroochydore Oxide and Maroochydore Sulphide Mineral Resource**

The information in this announcement that relates to Mineral Resources for Nifty Oxide and Nifty Heap Leach has been extracted from Aditya Birla Minerals Limited's Mineral Resource Estimate Update, released on 16 May 2016 and is available to view at <http://www.asx.com.au>. The Mineral Resource estimates are at 31 March 2016 and were reported in accordance with JORC Code 2012 guidelines. Metals X confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. Metals X confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original market announcement. In all Resources tables, significant figures do not imply precision. Figures are rounded according to JORC Code guidelines.

## **Competent Person Statement – Renison Tin Project Mineral Resource**

The information in this announcement that relates to Mineral Resources for the Renison Tin Project has been extracted from Metals X's announcement dated 24 May 2019 and is available to view at <http://www.metalsx.com.au>. The Mineral Resource estimates are at 31 March 2019 and were reported in accordance with JORC Code 2012 guidelines. Metals X confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. Metals X confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original market announcement. The Measured and Indicated Mineral Resources tabled above are inclusive of those Mineral Resources modified to produce the Ore Reserve. In all Resources tables, significant figures do not imply precision. Figures are rounded according to JORC Code guidelines.

## **Competent Person Statement – Wingellina Project Mineral Resources**

The information in this announcement that relates to Mineral Resources for the Wingellina Project has been extracted from Metals X's Annual Mineral Resources and Ore Reserves Statements released on 18 August 2016 and is available to view at <http://www.metalsx.com.au>. The Mineral Resource estimate is at 30 June 2016 and was reported in accordance with JORC Code 2012 guidelines. Metals X confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. Metals X confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original market announcement. The Measured and Indicated Mineral Resources tabled above are inclusive of those Mineral Resources modified to produce the Ore Reserve. In all Resources tables, significant figures do not imply precision. Figures are rounded according to JORC Code guidelines.