



## March 2018 – The Use of SkyTEM in the McArthur Basin Will Dix, Kim Grey

## **Disclaimer & Competent Person's Statement**



#### DISCLAIMER

- This presentation has been prepared by Todd River Resources Ltd. This document contains background information about Todd River Resources Ltd current at the date of this
  presentation. The presentation is in summary form and does not purport to be all inclusive or complete. Recipients should conduct their own investigations and perform their own analysis
  in order to satisfy themselves as to the accuracy and completeness of the information, statements and opinions contained in this presentation.
- This presentation is for information purposes only. Neither this presentation nor the information contained in it constitutes an offer, invitation, solicitation or recommendation in relation to
  the purchase or sale of Todd River Resources Ltd shares in any jurisdiction. This presentation may not be distributed in any jurisdiction except in accordance with the legal requirements
  applicable in such jurisdiction. Recipients should inform themselves of the restrictions that apply in their own jurisdiction. A failure to do so may result in a violation of securities laws in
  such jurisdiction.
- This presentation does not constitute investment advice and has been prepared without taking into account the recipient's investment objectives, financial circumstances or particular needs and the opinions and recommendations in this presentation are not intended to represent recommendations of particular investments to particular persons. Recipients should seek professional advice when deciding if an investment is appropriate. All securities transactions involve risks, which include (among others) the risk of adverse or unanticipated market, financial or political developments. To the fullest extent permitted by law, Todd River Resources Ltd, its officers, employees, agents and advisers do not make any representation or warranty, express or implied, as to the currency, accuracy, reliability or completeness of any information, statements, opinions, estimates, forecasts or other representations contained in this presentation. No responsibility for any errors or omissions from this presentation arising out of negligence or otherwise is accepted. This presentation may include forward looking statements are only predictions and are subject to risks, uncertainties and assumptions which are outside the control of Todd River Resources Ltd. Actual values, results or events may be materially different to those expressed or implied in this presentation.

### **COMPETENT PERSON'S STATEMENTS**

- The information in this announcement that relates to Exploration Results is extracted from ASX announcements made during 2017, which are available to view at <u>www.trrltd.com.au</u> and <u>www.asx.com.au</u>. The Company confirms that it is not aware of any new information or data that materially affects the information included in this presentation. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the announcements.
- The information in this announcement that relates to the estimation and reporting of the Sandy Creek Mineral Resource is extracted from the Independent Geologists Report included in the Prospectus lodged on 31 January 2017 and the Supplementary Prospectus lodged on 10 February 2017 which are available to view at <a href="http://www.trrltd.com.au">www.trrltd.com.au</a> and <a href="http://www.asx.com.au">www.asx.com.au</a>. The Company confirms that it is not aware of any new information or data that materially affects the information included in the Independent Geologists Report included in the Prospectus and Supplementary Prospectus and technical parameters underpinning the Mineral Resource estimate in the Independent Geologists Report included in the Prospectus and Supplementary Prospectus continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the Independent Geologists Report included in the Prospectus and Supplementary Prospectus.

# McArthur River Copper Project – Project Area



- Project area covers a region at the southern part of the basin between the Emu Fault and Mallapunyah Fault
- Targeting Cu in the Tawallah Group basal Wollogorang Fm
- 2 holes drilled by TNG in 2014 to follow up surface geochem – intersected anomalous Cu & Zn values
- Further mapping and sampling commenced in 2017 – widespread Cu anomalism
- Area identified for SkyTEM coverage and survey completed in late 2017



# McArthur River Copper Project – Why Airborne EM?

- Wanted to get best "bang for buck"
- Technology improved to the point it's now "worth it"
- Provides cost effective, efficient coverage over large areas in a relatively short time
- Geological context provided by mapping, sampling and drilling
- Targeted down dip extensions to the Wollogorang stratigraphy
- Also covered the Mallapunyah Formation in the east of the project area



# McArthur River Copper Project – SkyTEM survey



- SkyTEM survey collecting over 600 line Km of data during late 2017
- Helicopter-borne 16x28m acquisition loop
- Dual moment transient electromagnetic system
- 400m line spacing with 200m infill as required
- Flown orthogonal to strike as best as possible
- Outputs include:
  - 3D inversion model of conductivity
  - 3D inversion model of magnetics
  - Depth slices and sections of conductivity and resistivity
  - 3D conductivity wireframe representing shale units



# McArthur River Copper Project – Geophysical Outcomes



- Survey focussed on the Tawallah Group and in particular the Wollogorang Formation
- Excellent tool for mapping out stratigraphy
- 5 Conductors identified in the Wollogorang
- 3 large conductors between 80-400m depth within the Mallapunyah Formation
- 1 strong basement conductor at the base of the Settlement Creek Dolerite





# McArthur River Copper Project – Wollogorang Formation

Mallapunyah Fm.

30

Lower and Upper Conductors



- High quality data allows clear stratigraphic and structural definition
- Strong shallow conductor for immediate drill testing

Warramana Sst./Masterton Sst.

Line 201601

10

**Resistive unit** 

- Secondary copper mineralisation at surface over 200m of strike at the up-dip projection of the conductor
- Copper results at surface up to 44% Cu
- Multiple areas for follow up geophysics

Wollogorang Fm.

Conductor

Conductivity (mS/r

Southwes

100

-100 -200

-300

-400

-500



# McArthur River Copper Project – Mallapunyah Formation





 Large conductors in the Mallapunyah on the eastern side of the survey area over 3 depth slices -

## McArthur River Copper Project – Geological Context





- Solid geology overlain on the SkyTEM data to constrain modelling
- Faults isolated and projected onto section

## McArthur River Copper Project – 2D modelling





## McArthur River Copper Project – 3D modelling





- 3D conductivity wireframes representing shale units modelled in isolation
- Within this target the hot spots for follow-up/drilling

# McArthur River Copper Project – Work Program 2018 and beyond...



- Further refinement of SkyTEM data over eastern Mallapunyah Formation conductors - ongoing
- Walk up drill targets on the Wollogorang Formation conductors – Q3 2018
- Drill hole into deeper basement conductor Q3 2018
- First pass exploration on new ground north and south of current tenure May/June
- Follow up drilling later 2018 or 2019
- Update AGES 2019



# Project Portfolio – base metals and gold focus





\* Indicated 5.1Mt @ 1.94% Zn, 0.82% Pb and 5.82g/t Ag and inferred 17.4Mt @ 1.77% Zn, 0.33% Pb and 4.19g/t Ag. Full details (including those required under the 2012 JORC Code) are contained in the Prospectus

Page: 13



THANK YOU

ASX Code: TRT

www.trrltd.com.au

