

## **DECEMBER 2017 QUARTERLY ACTIVITIES REPORT**

*Strong lithium potential outlined at Walabanba and Soldiers Creek; SkyTEM survey at McArthur River generates outstanding base metal targets; highly experienced mining executive Will Dix appointed as CEO and set to commence in the new role effective from 1 February 2018*

### **HIGHLIGHTS**

#### **EXPLORATION – NT Projects**

##### **Walabanba Project**

- Additional in-fill rock chip sampling confirms potential of the pegmatites at the Bismark Prospect to host economic grade lithium mineralisation, returning the highest lithium grade yet returned for the area – 4.63% Li<sub>2</sub>O.
- Mineralogical work confirms that spodumene is the main lithium-bearing species present in samples from Bismark – *in excess of 50% of the rock sample in two cases.*
- LCT-type pegmatite confirmed from geochemical and mineralogical work conducted.

##### **Soldiers Creek**

- Highly encouraging results received from maiden mapping and sampling program over the recently granted Soldiers Creek Project, located west of Katherine and south of the Bynoe Lithium Field in the Northern Territory.
- Three new lithium prospects outlined within historical tin mining areas, with the Muldiva and Buldiva areas returning rock chips results of up to 2,235ppm Li<sub>2</sub>O and up to 75% SnO<sub>2</sub> (tin) in pan concentrates.

##### **McArthur River Base Metals Project**

- Five large, strong and extensive geophysical targets identified from the interpretation of the recently acquired SkyTEM airborne EM survey. Excellent acquisition data allows clear stratigraphic and structural definition within the survey area.
- Extensive copper anomalism outlined within the basal shale unit of the Wollogorang Formation with grades of up to 44.5% Cu returned from rock chip samples taken from the Southern Copper Area.
- Geological mapping has outlined the extent of this basal shale unit to the south and west, with over 6km of strike better defined. The prospective stratigraphy continues to the east, south and south-west under shallow cover.

##### **Manbarrum Zinc-Lead Project**

- Conceptual Mining Study progressed on the advanced Manbarrum Zinc-Lead Project.

#### **CORPORATE**

- Appointment of Will Dix as CEO.
- Cash balance at the end of the Quarter of \$2.5 million.



Todd River Resources Limited (ASX: TRT) is pleased to report on another period of significant exploration activity across its highly prospective asset portfolio in the Northern Territory (Figure 1). With final assay results received last quarter from maiden drilling programs at the Mount Hardy Copper-Zinc Project, the focus of activity shifted during the quarter to other projects within the Company's portfolio including **Walabanba**, **Soldiers Creek** and **McArthur River**.

Widespread pegmatite-hosted lithium potential was outlined at the recently granted **Soldiers Creek Project**, located west of Katherine and south of the emerging Bynoe Lithium Field. This represents an exciting exploration opportunity for Todd River in 2018 – particularly given the current high level of investor interest in the lithium exploration sector.

High-grade lithium rock chip results also confirmed potential of the Bismark Prospect, within the **Walabanba Project** located north of Alice Springs, to host economic grade lithium mineralisation.

Several outstanding base metal geophysical targets were identified at the **McArthur River Project** from a highly successful SkyTEM survey completed during the quarter. The targets include five significant conductors, some up to 3km in length, which will be prioritised for further modelling and ground-based follow-up in early 2018.

During the quarter, work progressed on the Conceptual Mining Study for the **Manbarrum Zinc-Lead Project**, one of Australia's largest undeveloped zinc projects. With zinc prices currently at multi-year highs – and strengthening further recently to over US\$3,300/t – Manbarrum represents an attractive growth and development opportunity for the Company in a favourable location.



Figure 1. Todd River Resources project portfolio in the Northern Territory.

## EXPLORATION

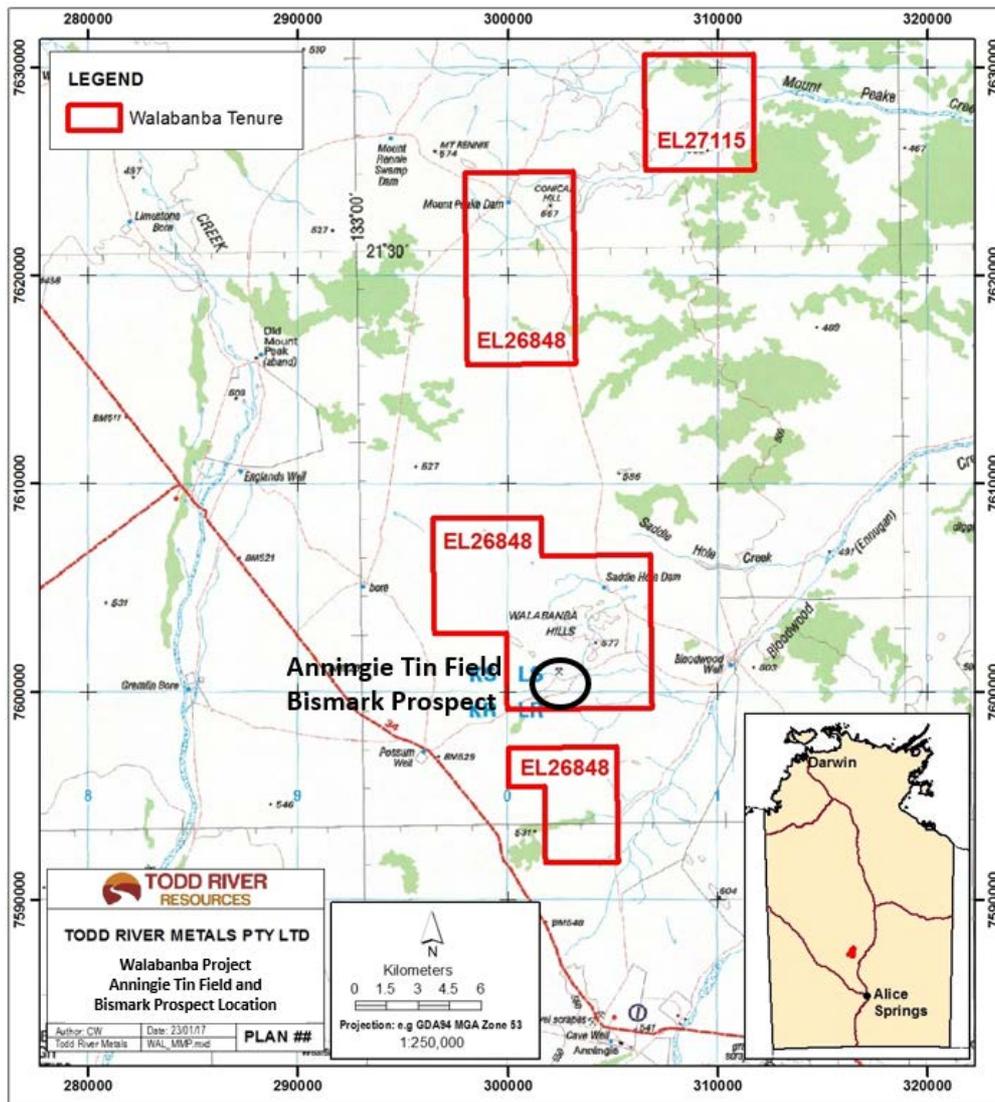
### WALABANBA BASE METAL PROJECT (TRT: 100%)

During the quarter, the Company received the results of in-fill rock chip sampling which has confirmed both the extent and high grades of the lithium-bearing pegmatites mapped at the Bismark Prospect, located within the historical Anningie Tin Field in the southern half of the Walabanba Hills on Anningie Station (within Exploration Licence EL26848, 250km north of Alice Springs – see Figure 2).



Sampling of the numerous pegmatites mapped in the Bismark area returned results with an outstanding maximum grade of **4.63% Li<sub>2</sub>O**. The best grade is associated with spodumene-quartz pegmatite and albite-spodumene-quartz pegmatite, confirmed by XRD analysis.

In total, there were 15 rock samples in the area which returned assays of greater than 1% Li<sub>2</sub>O, spread over several pegmatite bodies within an area of 350m x 400m. The best lithium results were returned from pegmatite zones hosted by amphibolite and found on the nose of a fold in the bedrock sequence. Broad multi-element support is provided in the lithium-associated elements – Cs, Ta, Sn, and Nb – confirming the LCT-type nature of the host pegmatites.



**Figure 2. Location plan for the Walabanba Project, showing the Anningie Tin Field.**

Historical activity on the Anningie Tin Field was outlined in the Company's ASX announcement of 11 July 2017, namely:

- Historical workings from the 1930s to 1970s focused only on tin (Sn) and Tantalum (Ta).
- Work by the Northern Territory Geological Survey reported in 2005 confirmed that the pegmatites in the area were of the LCT (lithium-caesium-tantalum) type, and they had the most favourable geochemistry of all northern Arunta pegmatites studied.

Initial mapping and sampling was conducted by Todd River's exploration team in July 2017, and reported in August (see ASX announcement – 21 August 2017).



Subsequent work completed in July 2017 included geological mapping at 1:2000 scale over the historical tin mining centres of Bismark and Clarks, soil sampling using a portable-XRF and rock chip sampling of prospective pegmatite units which returned results of up to 4.41% and 4.22%  $\text{Li}_2\text{O}$  with supporting pathfinder elements.

XRD mineralogical analysis was undertaken on a total of 12 rock chip samples from the July 2017 campaign, with analytical results reported in the ASX release of 21 August 2017, identifying the minerals present in the samples and confirming the presence of a high proportion of spodumene in three of the 12 samples.

These pegmatite phases, together with the geochemistry, confirm that all the pegmatites in the Bismark area are of a LCT-Type (Lithium-Cesium-Tantalum type). Both albite-spodumene and complex pegmatite varieties are indicated from the mineralogy.

From an economic point of view, the presence of abundant spodumene in some of the pegmatite phases at Bismark is positive. All pegmatite-hosted lithium mines in Australia have spodumene as the lithium host mineral. Both petalite and lepidolite mica contain significant lithium, but have issues with lithium extraction/processing.

### Rock Chip Sampling

During the quarter, further rock chip sampling was conducted to obtain better control on the department of lithium-rich pegmatite. 206 rock chip samples (Figure 3) were taken from the Bismark and Clarks area, and were submitted for sodium peroxide fusion ICP determination analysis at ALS (lab code ME-MS89 and ME-ICP91).



**Figure 3. Rock chip sampling, Bismark area:**  
**(Left) 25m wide pegmatite, on dolerite hill to the east of Clark's; and**  
**(Right) Gully pegmatite.**

Detailed results were reported in the Company's ASX announcement of 21 December 2017. Significant anomalous results for all the lithium-pegmatite related elements were returned:

Lithium	<b>Maximum value</b>	<b>4.63% <math>\text{Li}_2\text{O}</math></b>
	<b>Twelve values</b>	<b>&gt;1% <math>\text{Li}_2\text{O}</math></b>
	26 values	>0.1% $\text{Li}_2\text{O}$



	54 values	> 100 ppm Li
Caesium	Maximum value	1380 ppm Cs
	Ten values	>500 ppm Cs
Tin	Maximum value	0.62% SnO <sub>2</sub> (4890ppm Sn)
	20 values	>1000ppm Sn
Tantalum	Maximum value	5180ppm Ta
	Five values	>300ppm Ta
	57 values	>100ppm Ta
Niobium	Maximum value	1050ppm Nb
	13 values	>100ppm Nb

There are 12 samples with lithium analyses exceeding 1% Li<sub>2</sub>O, which is above the economic cut-off grade for many of the current lithium miners in Western Australia. Most lithium ores in Western Australian pegmatite mines have grades in the 1-2% Li<sub>2</sub>O range and contain 10-25% spodumene.

More significantly, there are **10 results that are over 3% Li<sub>2</sub>O**. This is very high grade, and indicates that there is at least 40% spodumene in the rock sample.

Despite many pegmatites having high potassium values (2 to +15% K) due to the presence of potassium feldspar and muscovite, all the plus 1% Li<sub>2</sub>O samples have less than 0.5% K, due to K-feldspar and muscovite making up less than 5% of these specific rocks. The spodumene occurs almost exclusively with quartz and albite (Na feldspar).

A full overview of the areas mapped and detailed results from each were provided in the Company's ASX Announcement of 21 December 2017.

### Next Steps

Further mineralogical analyses will be obtained over the coming months, including both XRD mineralogy and petrographic thin-section descriptions, to determine the mineral department and grainsize/texture of the lithium species.

These results will be assessed, together with the work from earlier in the year, to allow planning of a program for 2018, which may include drilling.

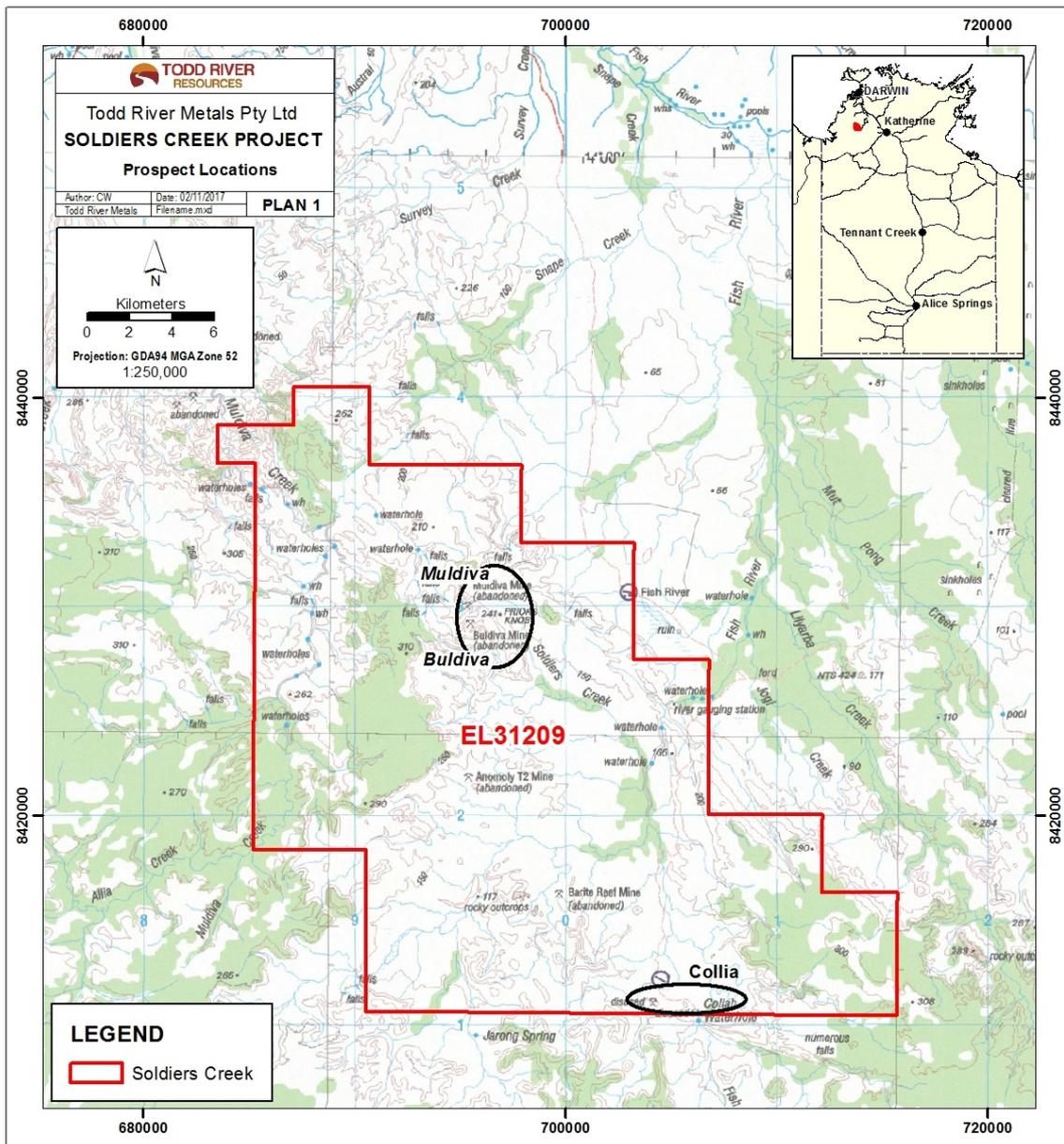
### SOLDIERS CREEK PROJECT (TRT: 100%)

During the quarter, an initial mapping and sampling program was conducted at the recently granted Soldiers Creek Project area, located west of Katherine in the Northern Territory (Figure 4), resulting in the delineation of three extensive pegmatite-hosted lithium prospects with very high tin values.

The Soldiers Creek EL 31209 covers 181 blocks, some 160km to the south of Darwin and west of Katherine. The tenement was granted to Todd River in December 2016, clearing the way for it to undertake the first-ever field program at the project in September 2017.

The tenement covers most of the Wingate Mountain pegmatite district of the Litchfield pegmatite belt within the Pine Creek Orogen of Paleoproterozoic rocks. The Bynoe pegmatite field, which lies to the north, has had significant lithium exploration work conducted on it over the last two years by companies such as Core Exploration (ASX: CXO), Liontown Resources (ASX: LTR), and Kingston Resources (ASX: KSN).

Earlier this year, Core Exploration defined the first Lithium Mineral Resource in the Northern Territory at the Grants Prospect. It has also recently purchased Liontown's tenure in the Bynoe Field for \$3.5 million (cash plus shares), with a further \$1.5 million payable on the definition of a Mineral Resource exceeding 5 million tonnes (see Liontown's ASX release on 14 September 2017).



**Figure 4. Location of the Soldiers Creek Project, showing the three prospect areas mapped.**

Three historical tin mining centres are located on the southern portion of the Wingate Mountain district, and within EL 31209. The Muldiva and Buldiva historical tin mining centres are immediately west of the Fish River homestead, while the Collia (Collah) tin field is near the southern boundary of the licence (Figure 4).

Historical tin and tantalum mining in these areas was predominantly from both alluvial (creek sand) and eluvial (soil) material, with only minor production from pegmatite. Production resulted in cassiterite (a tin oxide mineral) and a smaller amount of tantalite (Fe-Mn tantalum oxide mineral) concentrates being produced. Recorded historical tin production from these three tin fields was 45.7 tonnes.

A full overview of the initial program of geological mapping and sampling completed over the three historical tin mining centres, as well as a detailed discussion of the subsequent rock chip sampling program, was provided in the Company's ASX Announcement of 10 November 2017.



The program has outlined three areas of lithium-bearing pegmatites, in an area that has had no previous work focused on lithium. The existing tin mining activity provides a focus and indicates potential size of the lithium-bearing pegmatite system being greater in the vicinity of Collia. The elevated REE values also suggest that the pegmatites could be of either REE-type or REL-Li type, and offer another avenue for further work.

### Next Steps

Additional analyses are awaited (above detection tin samples) and petrographic and mineralogical will be done on the samples obtained during this field program, to confirm the lithium and rare-earth minerals present. Once assessed, follow-up work will be planned for early in the 2018 dry season.

### McARTHUR RIVER BASE METALS PROJECT (TRT: 100%)

The McArthur River Project is located 450km south-east of Katherine, within the Mallapunyah, McArthur River and Kiana pastoral stations. Todd River has recently expanded its strategy land-holding in the area by pegging of two adjacent licenses, ELAs 31703 and 31704 (see ASX announcement – 28 September 2017), increasing the area to 584.32km<sup>2</sup>.

The location of TNG's McArthur River Project is shown on Figure 5 in relation to the Batten Fault Zone, Glencore's McArthur River zinc mine (60km to the north-east), and the recently outlined Teena Zn-Pb Mineral Resource. Teena is owned by Teck Australia and has an **Inferred Mineral Resource of 58Mt @ 12.7% Zn+Pb**, for a **contained 6.5 million tonnes of zinc** and 0.9Mt of lead (see Rox Resources ASX Announcement – 1 June 2016).

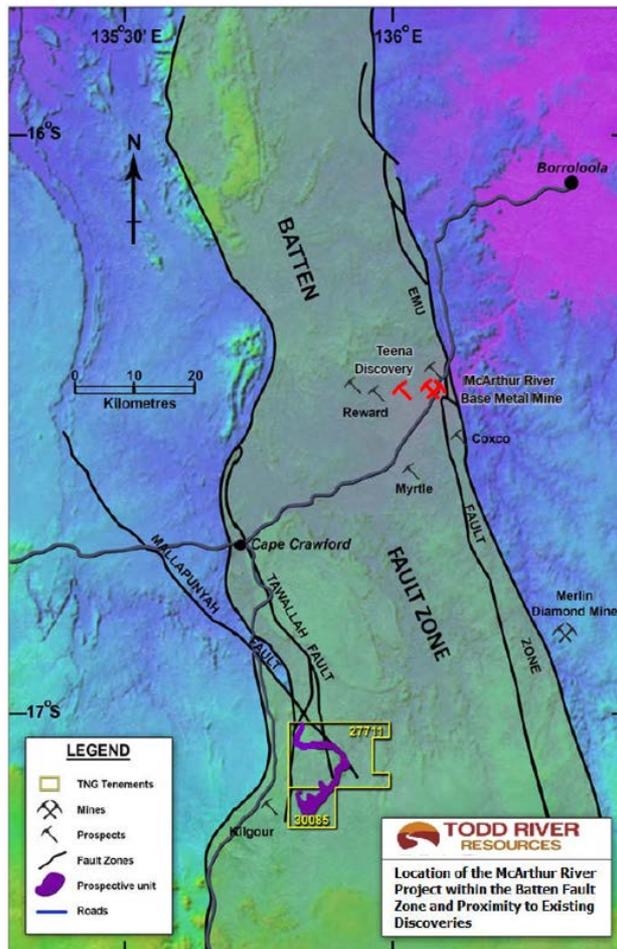


Figure 5. Location of the McArthur River tenure in relation to the prospective stratigraphy, significant regional faults within the Batten Fault Zone, the HYC McArthur River zinc mine, and the Teena Mineral Resource area.



## High-Grade Copper Potential – Southern Copper Area

During the quarter, the Company outlined a new extensive and highly prospective copper target with results from mapping and sampling in the Southern Copper Area identifying significant copper anomalism in the basal shale unit of the Wollgorang Formation, one of the main prospective geological units.

The Company's exploration team is actively targeting the Wollgorang Formation, which contains both stratiform/stratabound copper (see *TNG ASX Announcement – 9 June 2015*) and zinc-lead-silver mineralisation.

Both the Wollgorang Formation and the Barney Creek Formation (which hosts the HYC McArthur River deposit and Teena discovery) were deposited in a near-shore rifted epicontinental basin environment under euxinic (sulphide-rich) conditions, and contain significant thicknesses of organic-rich sulphide-bearing shales. Work completed in 2016 extended the known anomalous stratigraphy on the tenements to a strike length of 25km (see *TNG ASX announcement – 14 July 2016*).

Geological mapping following the Wollgorang Formation, and specifically the lowermost shale sub-unit (Pto1), was completed to the south and west of the trenching area. A total area of 11km<sup>2</sup> was mapped, with all units cropping out: basement Settlement Creek Dolerite, four mappable sub-units of the Wollgorang Formation, the Gold Creek Volcanics, and the ridge-forming Warramana Sandstone/Masterton Sandstone hangingwall sequence outlined.

The basal shale was followed to the south and west, with 6km of strike outlined. The unit dips to the south and east at very low angle (less than 15 degrees) over much of the southern part of the Mallapunyah Dome, making it a good geophysical target under shallow cover (<200m deep) for large parts of the tenement package. Better definition of the Wollgorang Formation in the south of the Mallapunyah Dome area will assist in the ongoing assessment of the recently acquired SkyTEM data.

## Rock Chip Sampling

A suite of 16 rock samples were submitted for analysis from within the mapping and trenching area. Eight of the samples exceeded 0.5% Cu, with five samples with above 20% Cu, and a maximum value of 44.5% Cu.

All anomalous samples have visible malachite, minor chrysocolla and, rarely, chalcocite copper species present, indicating that all are supergene copper carbonate accumulations. The Pto1 basal shale samples have a **Cu-Ag-Bi multi-element association**, with highest results for each element being: **56.7 g/t Ag, and 2350 ppm Bi**. The overlying calcareous unit samples with anomalous copper have a **Cu-As-Mo-Sb-Zn-Pb multi-element association**, with maximum values of:

**6.3% Cu and 1300 ppm As;  
990 ppm Mo and 80 ppm Sb; and  
1465ppm Zn and 569ppm Pb.**

A full overview and discussion of the rock chip sampling results was provided in the Company's ASX Announcement of 14 November 2017.

## Channel Sampling

A total of 18 shallow trenches/channels were sampled, with the area based on mapping completed in 2015 (see *TNG ASX Announcement - 9 June 2015*) where rock chip sampling results of up to 48% copper were returned in the lowermost shale unit of the Wollgorang Formation (Pto1). This mapping outlined an area of 1.6 x 1.0km where there were numerous exposures of the Pto1 unit, due to the shallow dipping stratigraphy and breakaways forming in the overlying dolomite (Pto2 unit).



The intent was to quantify the thickness and magnitude (grade) of the copper in the basal shale in the area where it was known to be both anomalous and broadly exposed. A total of 218 channel samples (plus 11 standards) were submitted for ICP base metal analysis. All samples of unit Pto1 were of weathered shale and dolomitic shale/siltstone, with some being taken of clay dominated material – right on the residual soil contact. Dips were measured to allow for determination of true stratigraphic thickness of the channel and the unit sampled. Three of the channels returned values in excess of 1000ppm Cu, summarised below:

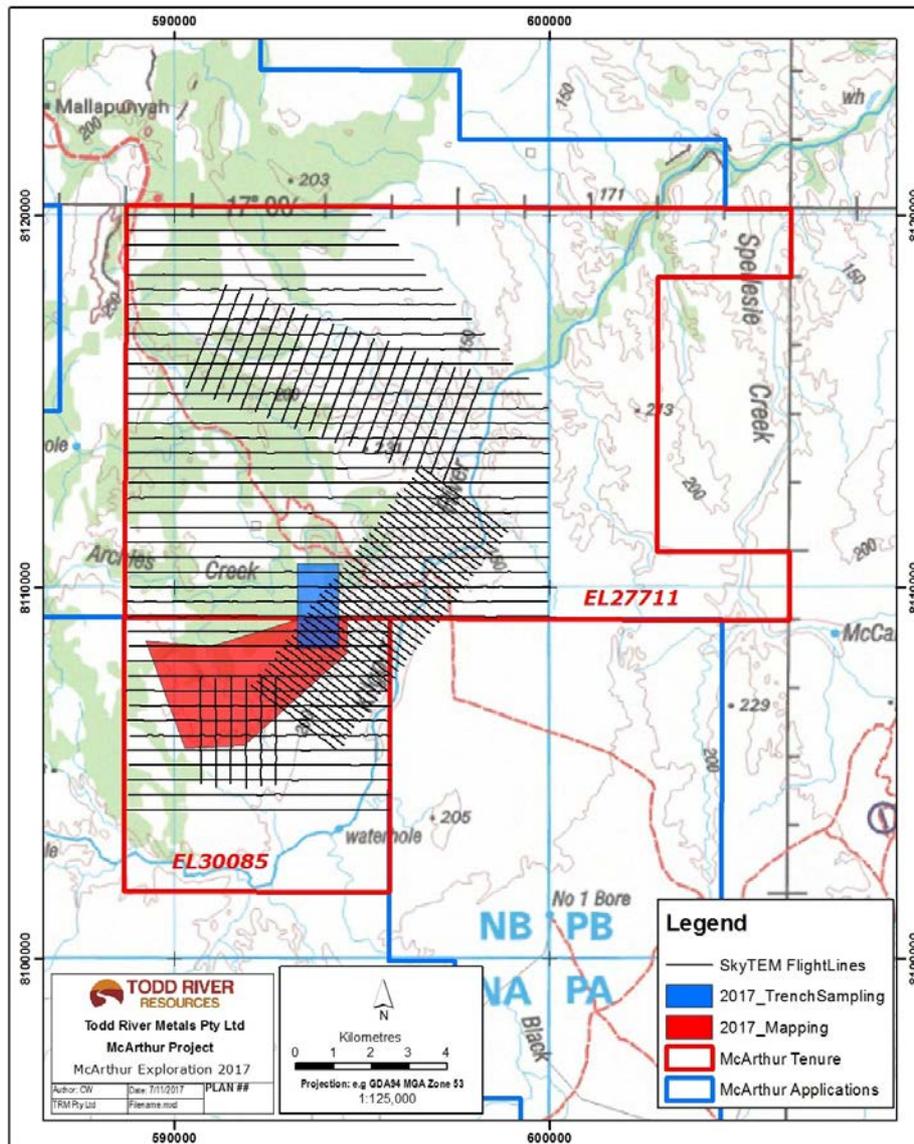
<b>Channel</b>	<b>True Thickness @</b>	<b>Grade</b>
<b>6a</b>	<b>6m @</b>	<b>0.30% Cu</b>
<b>16</b>	<b>2m @</b>	<b>0.27% Cu</b>
<b>17</b>	<b>4m @</b>	<b>0.18% Cu</b>

*Note: The thickness above is a calculated true thickness of the shale, based on sample lengths and dip measurements taken in the vicinity.*

A full discussion and overview of the channel sampling results was provided in the Company's ASX announcement of 6 December 2017.

### **SkyTEM Survey**

An extensive, state-of-the-art AEM geophysical survey was completed during the quarter over the McArthur River Project in the Northern Territory (Figure 6). The survey was designed to cover the extensive existing 25km strike length of copper-zinc geochemical soil anomalism and recent rock chip results (see TNG's ASX announcement – 16 September 2013; TNG ASX announcement – 18 December 2014 and TRT ASX announcement – 14 November 2017).



**Figure 6. Location of the McArthur River Project, showing the area mapped, the rock and trench sampling area, The SkyTEM survey area, and adjoining new tenure.**

Interpretation and assessment of the results of the survey was completed during the quarter, resulting in the identification of multiple strong and extensive base metal targets. The results provide another indication that previously announced surface anomalism could be related to a possible large base-metal target at depth. The Company has based its exploration work to date on this model, which is consistent with other base metal discoveries in this large, under-explored province.

The 600 line km survey was completed in August by SkyTEM, a leading geophysical survey company (see TRT ASX announcement – 14 August 2017). The SkyTEM survey incorporated a helicopter-borne 16 x 28m acquisition loop and its state-of-the-art dual moment transient electromagnetic system.

The entire survey area (Figure 6) was flown at 400m line spacing on east/west lines. As the stratigraphic dip varies around the Mallapunyah Dome, three additional areas were flown with the flight lines more perpendicular to the strike of the stratigraphy, in order to obtain better conductivity sections for interpretation.

The geophysical dataset was delivered by the contractor in October and, following data validation, levelling and processing, was processed during the quarter by Todd River's geophysical consultant to provide several products including:



- 3D inversion model of the conductivity data;
- 3D TMI magnetics inversion model;
- Sectional conductivity and resistivity on flight lines;
- Depth slice plan images of conductivity and resistivity; and
- 3D conductivity voxets representing the shale units.

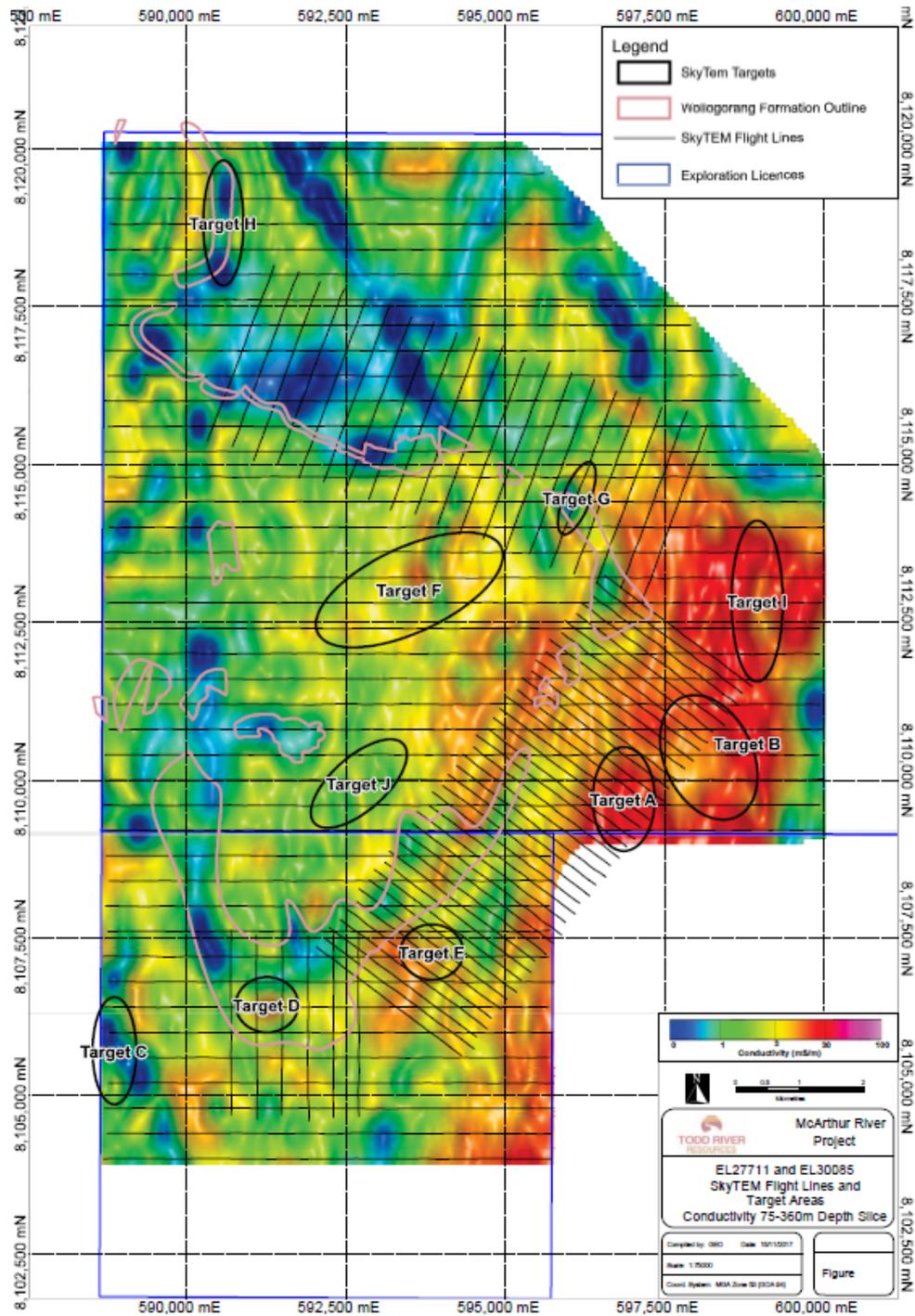
The SkyTEM data provided excellent quality to relatively deep levels (400-500m) below surface and allows for interpretation of conductor units that relate to specific stratigraphic horizons expected to contain base metal sulphides, which would have a moderate to high conductivity response.

These geophysical units can be followed over several kilometres and to depths of 250-400m below surface. Similarly, sandstone and dolomitic units containing no conductive minerals can be followed in the sub-surface, by their highly resistive/low conductivity responses. The highly resistive/low conductivity units are the Warramana and Masterton sandstone, and the Amelia Dolostone.

The Wollgorang Formation consistently has two moderate to strong conductor units showing in the SkyTEM dataset. These correspond to the lower Wollgorang Formation copper shale horizon and the central Wollgorang Formation ovoid beds unit that has anomalous zinc-lead values.

Both have surface geochemical anomalism associated with areas of outcrop and residual soils. Drilling by TNG in 2014 (see TNG ASX announcement – 18 December 2014) showed these units to be highly bituminous black shales with abundant very fine sulphides and anomalous zinc (to 0.20% Zn) and copper (to 0.21% Cu).

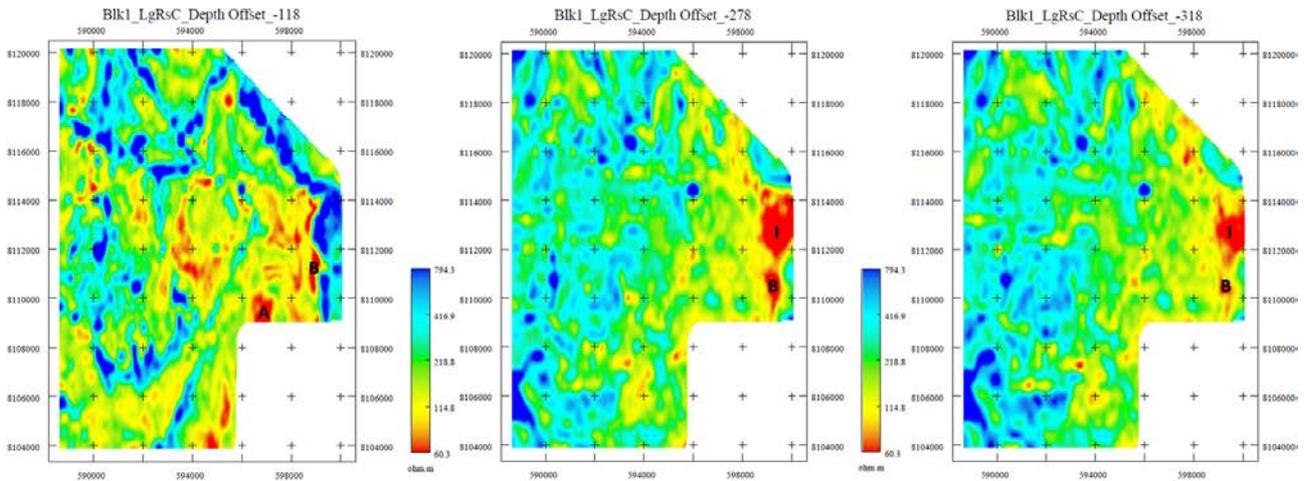
The interpretation has outlined significant conductors which represent targets for detailed evaluation in 2018. These are shown on Figure 7, a mid-time depth slice of Block 1 data. A total of 10 targets were identified with five selected as high priority.



**Figure 7. Plan of the McArthur River Project area, showing the SkyTEM survey lines and Target areas in Block 1 mid-late time conductivity image.**

Targets A, B and I

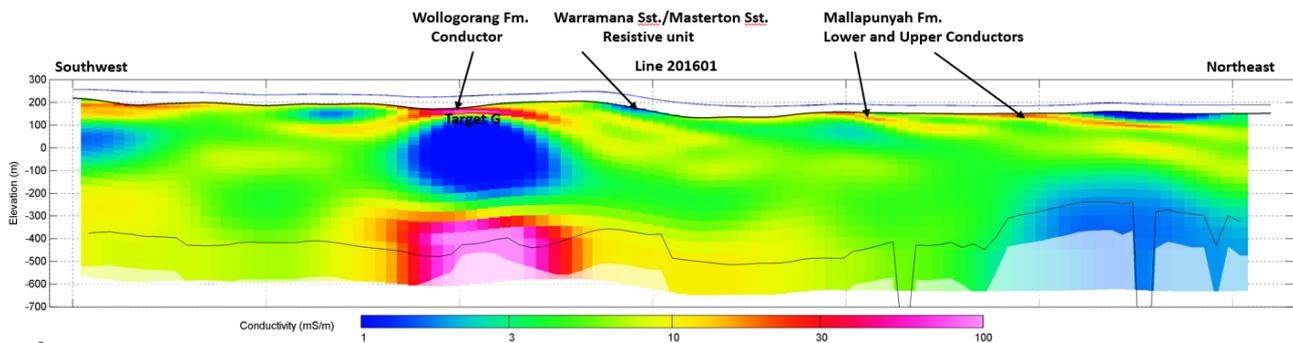
These are all large (each up to 3km in width) and strong EM features (see Figure 8). All appear to be within the targeted and prospective Mallapunyah Formation, and collectively cover a strike length of 5km. They range, west to east, from approximately 100m below surface to around 400m depth as the unit dips to the east.



**Figure 8.** Resistivity depth slices for Block 1 SkyTEM data, showing Targets A, B and I as low resistivity areas. Slices at ca. 120m, 280m, and 320m below the ground surface. Target A is shallow (80-200m below surface), Target B moderately deep (200-350m), and Target I deeper (240-400+m). All appear hosted within the Mallapunyah Formation.

### Target G

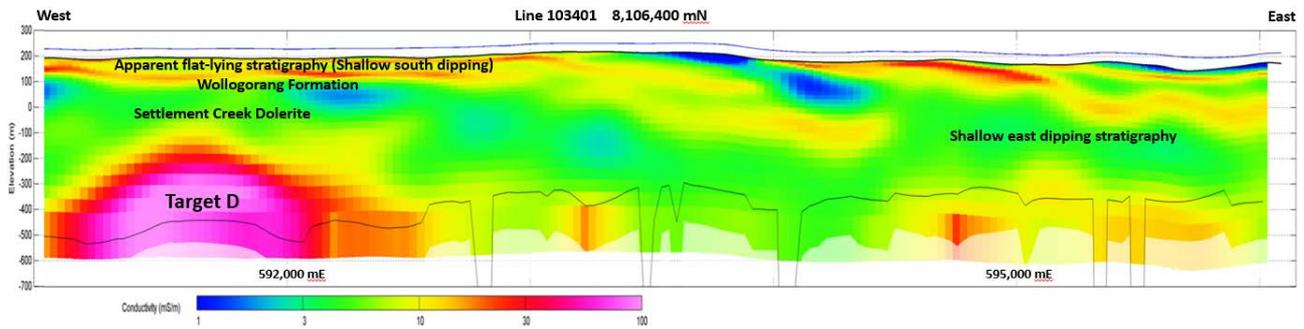
A strong conductor at shallow depth that corresponds with the Wollongorang Formation (Figure 9). Further support for Target G is provided by both historic anomalous copper geochemistry results (see TNG ASX announcement - -16 September 2013, and Figure 3 therein), and the mapped copper minerals malachite, azurite and chalcocite within 200m of the anomaly's surface expression. The regionally important Mallapunyah Fault also passes through the location, and along the northern edge of the Mallapunyah Dome. Given the geological and structural support for the geophysical target, this target warrants detailed field investigation and sampling early in the 2018 dry season.



**Figure 9.** Conductivity Section (Block 2 Line 201601) showing Target G, which coincides with historic surface copper geochemical anomalism and the position of the regionally important Mallapunyah Fault.

### Target D

Shown at depth on the western side of Figure 10. At ca. 4-500m depth it is likely at the base, or below, the Settlement Creek Dolerite. Further modelling is planned, and should provide better control on the peak position, depth, and strength of this strong but deep conductor feature.



**Figure 10. Conductivity Section (Block 1 Line 103401) showing Target D.**

Other Targets outlined on Figure 7 have also been identified on the basis of conductivity and geological/structural setting. Syn-sedimentary structures, identified from both existing geological mapping and interpretation of the magnetic data acquired by the SkyTEM survey, are important to provide metal fluid conduits and deposits of McArthur River/Teena type are usually found within 2km. The SkyTEM dataset will also have further structural and geological interpretation work completed to put the targets into context.

Ten target areas have now been outlined for further assessment. Interpretation of the geophysical data has confirmed the Wollogorang Formation as a solid target for HYC-style zinc-lead and copper stratiform mineralisation. In addition the search space has been opened up by the recognition of conductors in the overlying Mallapunyah Formation, and potentially the footwall sequence below the Settlement Creek Dolerite.

### **Next Steps**

Further modelling of the geophysical targets outlined is on-going. Modelling will better define the targets and allow a clear plan for testing the best ones. Field investigations of the shallow conductors will be conducted early in the 2018 dry season, with drill testing likely to follow.

Full details and discussion of the targets generated by the SkyTEM survey were provided in the ASX Announcement of 20 November 2017.

### **MANBARRUM ZINC-LEAD PROJECT (TRT: 100%)**

Last quarter, Todd River appointed leading mining industry consultants CSA Global to undertake a Conceptual Mining Study on its 100%-owned Manbarrum Zinc-Lead Project, located 70km north-east of Kununurra in the Northern Territory (Figure 1).

The Manbarrum Project was a flagship project for TNG Ltd (ASX: TNG) prior to the discovery of the Mount Peake vanadium-titanium-iron deposit, and is now a key asset for Todd River Resources following the successful spin-off of TNG's base metal assets earlier this year.

One of the largest undeveloped zinc projects in Australia, the Manbarrum Project includes the Sandy Creek deposit, which has a Mineral Resource of 22.5Mt @ 1.81% Zn, 0.44% Pb and 4.6g/t Ag, comprising an Indicated Resource of 5.1Mt @ 1.94% Zn, 0.82% Pb and 5.8g/t Ag and Inferred Resource of 17.4Mt @ 1.77% Zn, 0.33% Pb and 4.2g/t Ag, under JORC 2012. Numerous additional targets are located along strike from the Sandy Creek resource on the south-eastern margin of the Bonaparte Basin, including the Djibitgun prospect and the Browns prospect (Figure 11).

The Manbarrum Project is located 70km NE of Kununurra and 40km ENE of the large-scale Sorby Hills Base Metal Project, situated across the Western Australian border. The Sorby Hills deposit also contains a large lead, zinc and silver resource, which presents opportunities to explore synergies with the Manbarrum Zinc-Lead Project.



The purpose of the Conceptual Mining Study is to establish the criteria for a successful development of the Manbarrum Project. CSA Global proposes to explore a range of key project parameters to identify the circumstances required to support the project development and to enable it to be successfully developed.

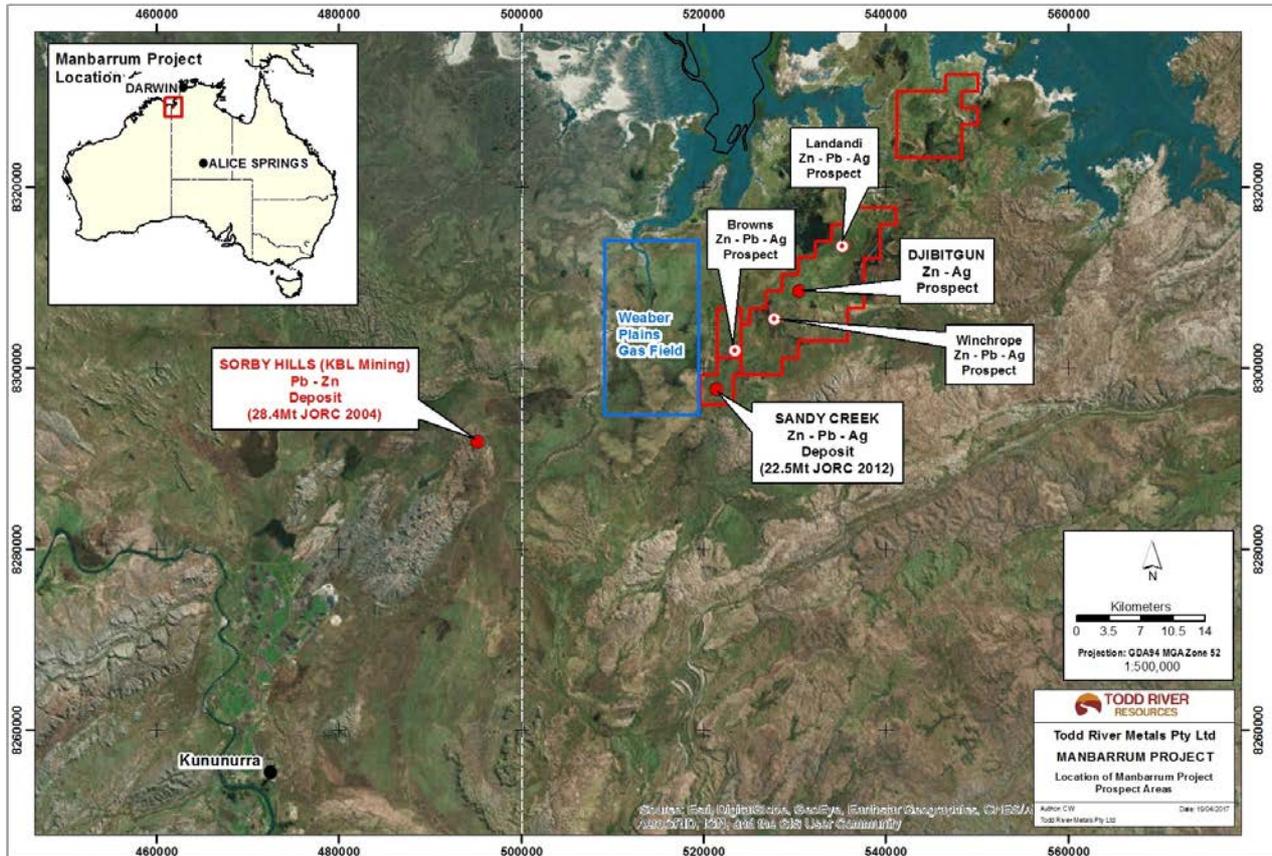


Figure 11. Location plan for the Manbarrum Project and proximity to the Sorby Hills Project.

## CORPORATE

### Executive Recruitment

During the quarter, Todd River announced the appointment of highly experienced mining executive Will Dix as Chief Executive Officer to spearhead the Company's exploration and growth strategy. Mr Dix, who was most recently Managing Director of zinc explorer Consolidated Zinc Limited (ASX: CZL), will commence in the new role with Todd River effective from 1 February 2018 after completing a management transition period.

During his 3-year tenure at Consolidated Zinc, Mr Dix was successful in building a zinc resource base from which the company completed successful Scoping Studies and now plans to transition into a developer and producer.

Mr Dix is a geologist with 23 years' experience in base metal, gold and uranium exploration and mining. Earlier in his career, he spent seven years with the highly successful international nickel producer LionOre Mining International in a variety of exploration, mining and management roles.

During his time with LionOre, Mr Dix was part of the team that discovered the Waterloo Nickel Mine and delineated the two million ounce Thunderbox Gold Project in Western Australia. He remained with LionOre until its US\$4.8 billion takeover by Norilsk Nickel in 2007.



He has a proven track record of successful project and team management and also has extensive experience in commercial activities including capital raisings, mergers, acquisitions and divestments. He holds a Bachelor of Science and Master of Science (Geology) from Monash University and is a member of AusIMM.

Mr Dix will become Todd River's inaugural CEO, following its successful \$6 million IPO and ASX listing earlier this year. He will take over executive responsibilities from Technical Director Paul Burton, allowing Mr Burton to continue to focus on his primary role as Managing Director of vanadium developer TNG Limited (ASX: TNG). Mr Burton will remain on the Board as Technical Director.

### **Cash position**

Todd River Resources had total cash reserves of \$2.5 million at Quarter-end.

### **Paul E Burton Technical Director**

25 January 2018

### **Competent Person Statements**

The information in this announcement that relates to exploration results is extracted from ASX announcements titled:

- "Widespread Pegmatite-Hosted Lithium and Tin Potential Outlined at Soldiers Creek Project, NT", lodged on 10 November 2017;
- "Significant High-Grade Copper Potential Outlined at McArthur River Project, NT", lodged on 14 November 2017;
- "Multiple Strong and Extensive Base Metal Geophysical Targets Generated from Recent SkyTEM Survey at McArthur River Project, NT", lodged on 20 November 2017;
- "Todd River Appoints Experienced Executive as CEO", lodged on 28 November 2017;
- "Significant Zone of Anomalous Stratabound Copper Outlined at McArthur River Project, NT", lodged on 6 December 2017.
- "High-Grade Lithium Results Confirm Potential of Bismark Propsect, Walabanba Project, NT", lodged on 21 December 2017.

which are available to view at [www.trrltd.com.au](http://www.trrltd.com.au) and [www.asx.com.au](http://www.asx.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement. The Company 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.

The information in this report that relates to estimation and reporting of the Sandy Creek Mineral Resource estimate 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 on the company's website [www.trrltd.com.au](http://www.trrltd.com.au) and [www.asx.com.au](http://www.asx.com.au). 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 that all material assumptions and technical parameters underpinning the estimates 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.

### **About Todd River Resources**

Todd River Resources (ASX: TRT) is an Australian-based resources company that holds a large, highly prospective zinc and base metals exploration portfolio in the Northern Territory. The Company was formerly a subsidiary of ASX-listed strategic metals company TNG Ltd (ASX: TNG), and was spun-out of TNG in 2016 to advance and develop TNG's significant portfolio of non-core base metals assets.

Todd River Resources recently completed a successful \$6 million IPO at 20c and its shares commenced trading on the ASX on 6 April 2017. With a strong cash position, Todd River is well placed to pursue exploration activities across its exploration portfolio, which are aimed at establishing the Company as a leading force in Australian zinc exploration and development.

Todd River's extensive base metal portfolio includes the large Manbarrum Zinc Project, the Mount Hardy Copper-Zinc Project, the Stokes Yard Zinc Project and the McArthur Copper-Zinc project, as well as a number of other exploration projects covering base metals and other commodities.

### **Tenement Schedule**

The Group holds an interest in the following tenements or tenement applications at 31 December 2017:

<b>Project</b>	<b>Tenements</b>	<b>Equity</b>
McArthur River	EL27711, ELA28509, EL30085, ELA31703, ELA31704	100%
Croker Island	ELA29164	100%
Mount Hardy	EL27892, EL29219, EL28694	100%
Manbarrum JV	MA24518, MA26581, EL24395, EL25646, MLA27357	100%
Sandover	ELA29252, ELA29253	100%
Tomkinson	EL30348, EL30359, EL31265	100%
Soldiers Creek	EL31209	100%
Stokes Yard	EL30131	100%
Walabanba Hills	EL26848,	100%
Warramunga/Rover JV	EL25581, ELA25582, ELA25587, MLC647	100%
Peterman Ranges	ELA26383, ELA25564, ELA26384, ELA25562, ELA26382	100%
Goddard's	ELA24260	100%

### **Forward-Looking Statements**

This announcement has been prepared by Todd River Resources Ltd. This announcement 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.

This is for information purposes only. Neither this 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 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 announcement. No responsibility for any errors or omissions from this arising out of negligence or otherwise is accepted.

This may include forward looking statements. 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.

For more information please see the company's website at [www.trrltd.com.au](http://www.trrltd.com.au)

## Appendix 5B

# Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13, 01/09/16

**Name of entity**

Todd River Resources

**ABN**

45 600 308 398

**Quarter ended ("current quarter")**

31 December 2017

<b>Consolidated statement of cash flows</b>	<b>Current quarter \$A'000</b>	<b>Year to date (12 months) \$A'000</b>
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) exploration & evaluation	(348)	(1,070)
(b) development	-	-
(c) production	-	-
(d) staff costs	(114)	(205)
(e) administration and corporate costs	(338)	(430)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	11	24
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Research and development refunds	-	-
1.8 Other (provide details if material)	-	-
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(789)</b>	<b>(1,681)</b>
<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire:		
(a) property, plant and equipment	-	-
(b) tenements (see item 10)	-	-
(c) investments	-	-
(d) other non-current assets	-	-

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (12 months) \$A'000
2.2 Proceeds from the disposal of:		
(a) property, plant and equipment	-	-
(b) tenements (see item 10)	-	-
(c) investments	-	-
(d) other non-current assets	-	-
2.3 Cash flows from loans to other entities	-	-
2.4 Dividends received (see note 3)	-	-
2.5 Other (provide details if material)	-	-
<b>2.6 Net cash from / (used in) investing activities</b>	<b>-</b>	<b>-</b>

<b>3. Cash flows from financing activities</b>		
3.1 Proceeds from issues of shares	-	-
3.2 Proceeds from issue of convertible notes	-	-
3.3 Proceeds from exercise of share options	-	-
3.4 Transaction costs related to issues of shares, convertible notes or options	-	-
3.5 Proceeds from borrowings	-	-
3.6 Repayment of borrowings	-	-
3.7 Transaction costs related to loans and borrowings	-	-
3.8 Dividends paid	-	-
3.9 Other (provide details if material)	-	-
<b>3.10 Net cash from / (used in) financing activities</b>	<b>-</b>	<b>-</b>

<b>4. Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1 Cash and cash equivalents at beginning of period	3,291	4,183
4.2 Net cash from / (used in) operating activities (item 1.9 above)	(789)	(1,681)
4.3 Net cash from / (used in) investing activities (item 2.6 above)	-	-
4.4 Net cash from / (used in) financing activities (item 3.10 above)	-	-
4.5 Effect of movement in exchange rates on cash held	-	-
<b>4.6 Cash and cash equivalents at end of period</b>	<b>2,502</b>	<b>2,502</b>

5. <b>Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1 Bank balances	2,430	3,224
5.2 Call deposits	72	67
5.3 Bank overdrafts	-	-
5.4 Other (provide details)	-	-
<b>5.5 Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>2,502</b>	<b>3,291</b>

**6. Payments to directors of the entity and their associates**

- 6.1 Aggregate amount of payments to these parties included in item 1.2
- 6.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2

Current quarter \$A'000
69
-

**7. Payments to related entities of the entity and their associates**

- 7.1 Aggregate amount of payments to these parties included in item 1.2
- 7.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2

Current quarter \$A'000
-
-

## Mining exploration entity and oil and gas exploration entity quarterly report

<b>8. Financing facilities available</b> <i>Add notes as necessary for an understanding of the position</i>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
8.1 Loan facilities	-	-
8.2 Credit standby arrangements	-	-
8.3 Other (please specify)	-	-
8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.		

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<b>9. Estimated cash outflows for next quarter</b>	<b>\$A'000</b>
9.1 Exploration and evaluation	(350)
9.2 Development	-
9.3 Production	-
9.4 Staff costs	(145)
9.5 Administration and corporate costs	(275)
9.6 Other (provide details)	-
<b>9.7 Total estimated cash outflows</b>	<b>(770)</b>

<b>10. Changes in tenements (items 2.1(b) and 2.2(b) above)</b>	<b>Tenement reference and location</b>	<b>Nature of interest</b>	<b>Interest at beginning of quarter</b>	<b>Interest at end of quarter</b>
10.1 Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced				
10.2 Interests in mining tenements and petroleum tenements acquired or increased				

**Compliance statement**

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Sign here: 

Date: 24 January 2018

Print name: Simon Robertson  
(Company secretary)

**Notes**

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.