TODD RIVER RESOURCES

ASX Announcement
13 June 2019

EXPLORATION UPDATE

Drilling continues to extend mineralisation at Hendrix and intersects sulphides at nearby Lennox and Browns prospects; down-hole geophysics now underway

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Key Points:

- **Phase 1 drilling completed at Hendrix with base metal sulphides intersected in most holes.**
- **Potential new mineralised horizon intersected close to the Hendrix mineralisation:**
    - **6.30m @ 1.5% Cu, 2.2% Pb, 7.5% Zn and 34g/t Ag from 434.7m in MHDD0057**
- **Sulphides intersected in initial drilling at both the Lennox and Browns Prospects.**
- **Down-hole geophysics and structural modelling underway.**
- **New outcropping mineralisation identified between Hendrix and Browns coincident with a subtle EM anomaly.**

Todd River Resources Limited (ASX: TRT; "Todd River" or "the Company") is pleased to report additional encouraging results from the recently completed drilling program at its 100%-owned **Mt Hardy Copper-Zinc Project** in the Northern Territory (Figure 1), where drilling has been undertaken at the Hendrix, Lennox and Browns Prospects and assays have been received for several holes at Hendrix.

The Company has completed approximately 5,000m of Reverse Circulation (RC) and diamond drilling as part of its ongoing multi-pronged exploration program at Mt Hardy targeting both strike extensions and in-fill at the Hendrix high-grade copper-zinc discovery and other high-priority nearby targets.

Commenting on the ongoing exploration at Mt Hardy, Todd River's Managing Director, Will Dix, said:

> *"The latest drilling has encountered a well-developed zone of hangingwall mineralisation close to the mineralisation at Hendrix which could represent a new mineralised horizon that requires further evaluation with down-hole geophysics.*
>
> *"Meanwhile, our regional exploration program is off to a great start with initial drilling intersecting sulphides at both the Lennox and Browns Prospects. We have always been confident there would be additional mineralisation beyond Hendrix, and we are really pleased to have confirmed this.*
>
> *"Excitingly, we have also identifed a number of areas where surface mineralisation has been outlined between the Hendrix and Browns Prospects, one of which co-incides with a subtle EM conductor identified during the regional moving-loop EM program completed earlier this year."*

ABN 45 600 308 398
North Wing, Level 2, 1 Manning St, Scarborough WA 6019 | PO Box 681
Scarborough WA 6019
P +61 8 61660255 | **F** +61 8 6270 5410 | **E** corporate@trrltd.com.au
www.trrltd.com.au

"Our focus now turns to completing the down-hole EM surveying at Hendrix, which is currently underway, and completing the 3D structural model at Hendrix – which will assist us with the next phase of drill targeting.

"We are also looking forward to receiving the balance of assay results from the Phase 1 drilling program at Lennox and Browns and planning the next phase of exploration at Mt Hardy once we can put all the available data together – assays, down-hole geophysical data, 3D structural geology and geochemistry."

Diamond Drilling

Hendrix Prospect

The initial 5,000m RC and diamond drilling program at Mt Hardy has been completed, with sulphides intersected at the Hendrix, Lennox and Browns prospects. Results have been received for all holes completed at Hendrix, with assays from the drilling at Lennox and Browns still pending.

The collar details for these holes are provided in Table 1 below:

Table 1 - Collar information for new diamond holes completed at Mt Hardy:

Hole ID	Prospect	Easting	Northing	AHD-m	DIP	Azimuth	Total Depth
MHDD0060	HENDRIX	761862	7553161	640	-58	111	481
MHDD0062	LENNOX	764929	7554056	641	-66	107	423
MHDD0063	LENNOX	764928	7554056	641	-72	98	534
MHDD0064	BROWNS	761008	7554510	643	-50	186	288
MHDD0065	BROWNS	760955	7554515	643	-55	185	222
MHDD0066	BROWNS	760895	7554516	643	-60	250	201

Results have been received for the drilling completed at the Hendrix prospect with mineralisation intersected in holes MHDD0057 and MHDD0058 but no significant intersections in MHDD0059 and MHDD0060. Figure 2 shows the mid-point pierce point locations for all drilling completed to date at Hendrix and Appendix 2 contains a full listing of recently received assay results.

MHDD0057 intersected a well-developed hangingwall zone of mineralisation of **6.30m @ 1.5% Cu, 2.2% Pb, 7.5% Zn and 34g/t Ag from 434.7m** and a main zone intersection of **3.18m @ 1.0% Cu, 2.3% Pb, 7.2% Zn and 47 g/t Ag from 538.1m.**

The hangingwall zone intersected in this hole is significantly thicker and in a position (100m above the main zone) not seen elsewhere in the mineralised zone, raising the possibility that this intersection is part of a previously unidentified zone of mineralisation.

Down-hole geophysics will be utilised to search for any off-hole conductance in this area as well as continuing to investigate extensions to the main zone.

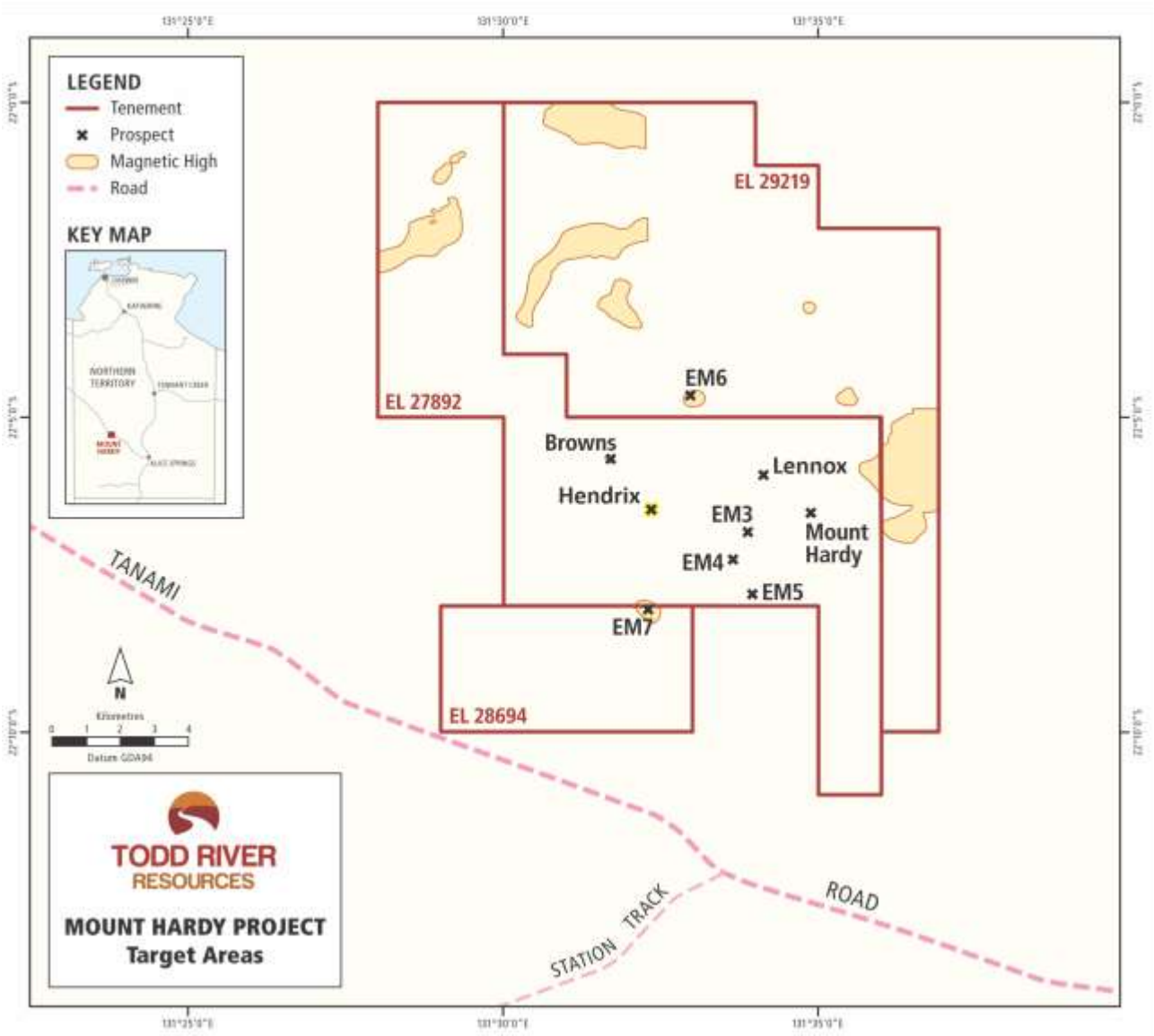

Figure 1 – Mt Hardy Project showing the location of the main drill target area, Hendrix and additional prospects in the project area.

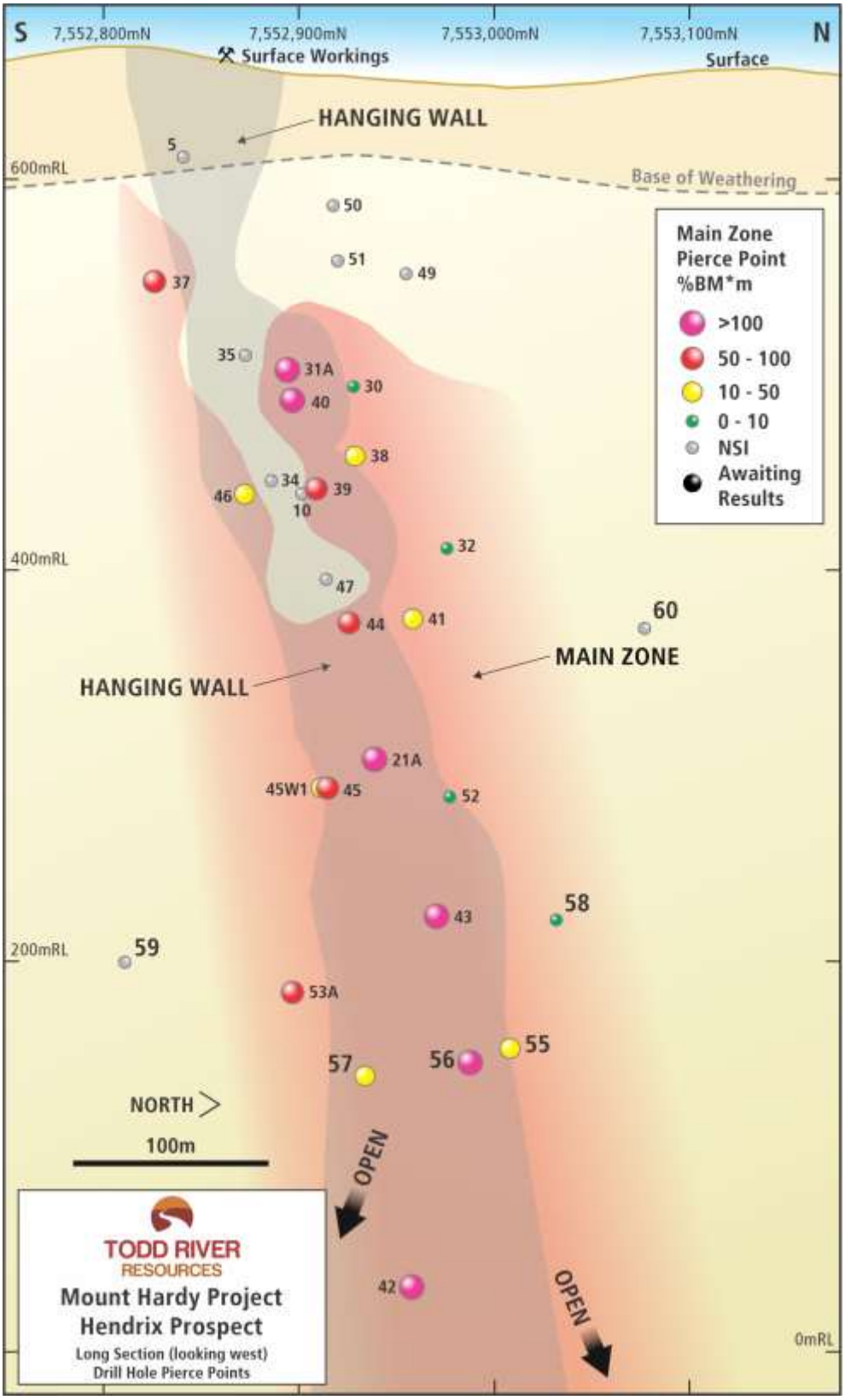

Figure 2 – Mt Hardy Project, Hendrix Prospect area long projection looking west showing current and planned drilling for the remainder of 2019.

Lennox Prospect

Two holes were completed at Lennox to test the undrilled off-hole conductor plate (a modelled plate 240m x 120m with moderate conductance of ~1200S identified in 2018 drilling). Results were similar to what has previously been intersected at Lennox.

Hole MHDD0062 intersected multiple narrow zones of stringer and breccia mineralisation with the pierce point of the EM plate at 378m down-hole, coincident with a narrow (85cm) zone of brecciated mineralisation with pyrrhotite. Assay results are pending for this hole, however base metal sulphides similar in appearance to other holes drilled at Lennox were also intersected between 272-274m.

Hole MHDD0063 was drilled to target a deeper part of the EM plate and also intersected narrow zones of stringer and brecciated sulphides (up to 5.6m down-hole). The pierce point was again coincident with a zone of stringer mineralisation. Assay results are pending.

Browns Prospect

Three holes have been completed at the Browns Prospect targeting the down-dip projection of surface workings that are coincident with a number of chargeability shells generated from the 2013 IP survey. The figure below, looking north-east, shows the target area and drilling.

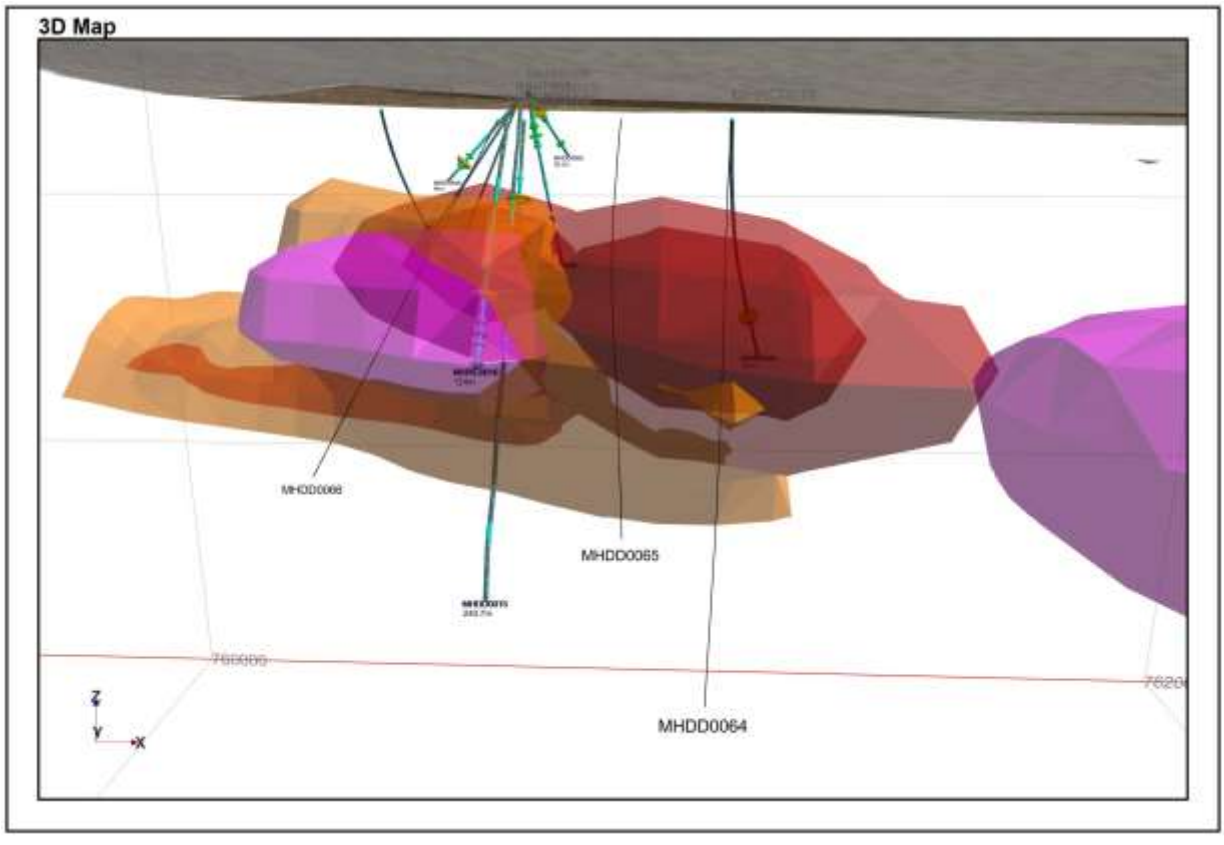

Figure 3 – Mt Hardy Project, Browns Prospect oblique image looking north-east, showing the chargeability shells and drilling.

Both MHDD0064 and MHDD0065 intersected multiple zones of stringer and brecciated sulphides over widths of up to 6m down-hole within the targeted chargeability shells. Chalcopyrite, sphalerite and galena were all observed in the drill-holes, although not in the same thick accumulations that are seen 3km south at the Hendrix Prospect. Assay results from these holes are pending and downhole geophysics has been completed on MHDD0064 and MHDD0065.

MHDD0066, drilled into the northern end of the IP anomaly, did not intersect any significant mineralisation.

Regional Targets and Geophysics

Moving loop and fixed-loop EM has been completed over the high-priority area between Browns and Hendrix and also over selected other areas where surface mineralisation has been observed or there are unexplained historical EM anomalies. Modelling is being completed on the new data as well as reconciliation with surface mineralisation.

Further geological mapping has identified several new areas of outcropping mineralisation including an area between Hendrix and Browns where old workings are co-incident with a subtle EM conductor that is currently being modelled.

Next Steps at Mt Hardy

Following the assimilation of down-hole geophysics data with the developing structural geological model, Todd River is planning to commence a new phase of drilling at Mt Hardy during August which is expected to run for a number of months.

Rover Gold Project

Drilling of two holes at the 100%-owned Rover Gold Project was completed in late May and analytical results recently received. No significant gold was intersected in the drilling, however encouraging signs of strong hematite/chlorite alteration could place the profile in a proximal zonation to a Tennant Creek-style IOCG deposit.

For this reason, the hole will be surveyed with down-hole geophysics in order to test for off-hole anomalies within the immediate vicinity.

Will Dix,
Managing Director – Todd River Resources

Enquiries:
Will Dix + 61 (0) 8 6166 0255

Nicholas Read
Read Corporate + 61 (0) 8 9388 1474

Competent Person Statement

The information in this report that relates to Exploration Results is based on information compiled by John Bartlett, who is an employee of S2 Resources and carrying out work for Todd River Resources under a Shared Services Agreement between the companies. Mr Bartlett is a member of the Australian Institute of Mining and Metallurgy (MAusIMM) and has sufficient experience of relevance to the style of mineralization and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Bartlett consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

About Todd River Resources

Todd River Resources (ASX: TRT) is an Australian-based resources company that has recently announced a zinc-copper discovery, Hendrix, at its 100% owned Mt Hardy Project, located 300km north west of Alice Springs.

With a strong management team, tight capital structure and fully funded for exploration in 2019, Todd River is well placed to pursue additional base metal mineralisation at Mt Hardy and progress exploration activities across its exploration portfolio.

While Todd River's main focus is at Mt Hardy, the Company holds an extensive precious and base metal project portfolio which includes the Rover gold project, the McArthur Copper-Zinc project and the large Manbarrum Zinc resource.

Appendix 1 JORC Table One – Section One. Sampling Techniques and Data
Mount Hardy Drilling – RC and Diamond Drilling

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report.	Reverse Circulation (RC) drill samples were taken from the rotary splitter mounted on the rig cyclone. Diamond drill samples were half core cut and sampled on 1m intervals. All samples from 2018 drilling have been submitted to Genalysis/Intertek Laboratories for industry standard preparation (whole sample crushed to >85% <75um) and analysis by both ICP for base metals and Fire Assay for precious metals. Portable XRF results reported here are taken from whole core analyses at 0.25 and 0.5m intervals.
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	Reverse Circulation (RC) drilling of pre-collars with NQ sized diamond drill tails. Most intervals has been oriented, except where broken ground in encountered.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	Average of >90% recovery in all intervals. No issues of fines loss were observed. No issues relating to preferential loss/gain of grade material have been noted.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged.	RC chips and core was geologically logged for lithology, mineralogy, colour, weathering, alteration, structure and mineralisation. All holes were logged in full.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled.	All RC holes were sampled from the rotating splitter under the drill cyclone, taking a 2-4kg split from the bulk 15-25kg 1m interval. All sampled core was sawn and half core submitted. The sample preparation for all samples follows industry best practice, with oven drying of samples prior to coarse crushing and pulverization (to >85% passing 75 microns) of the entire sample Field duplicates have been taken every 50th sample. Further sampling (second half, lab umpire assay) will be conducted if it is considered necessary. The sample size (2-5 kg) is considered to be adequate for the material and grainsize being sampled and the style of mineralisation being drilled.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	Three certified base metal standards and a certified blank sample were analysed during pXRF sampling, at a rate of 1 in 25 samples.

	For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	Standards were GBM399-7, GBM399-2, and GBM908-10 – low, medium and high grade for base metal respectively. Blank GLG312-2 was used. pXRF results for the standards and the blank were acceptable, and no calibration factors have been applied. Analytical results for the standards and the blank were acceptable, and no calibration factors have been applied. All samples were analysed at Genalysis Intertek by ICP technique, lab codes 4A/OE33 and FA25/OE04. The four acid digest for the ICP data is considered a "total" result. Given the above QA/QC work the results are considered to be a total result for the base metals reported (Cu, Pb, Zn), and to have acceptable levels of accuracy and precision.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data.	Sampling was conducted by the field geologist and verified by the Exploration Manager on site prior to cutting/dispatch. All data was entered into standardized spreadsheets on field laptops and uploaded into the company database. No adjustments have been made to the primary assay data
Locations of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control.	All drilling collars were located up using a standard GPS unit with accuracy of ca. 5m for Easting, Northing and RL All coordinate data for the Mount Hardy project are in MGA_GDA94 Zone 52.
Data spacing and distribution	Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied.	At this early stage of exploration hole spacings vary as dictated by target size and position. No compositing has been applied to the exploration results. Sampling was of an exploratory and reconnaissance nature and spacings are insufficient to establish continuity or define Resources.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	Drilling intersections at Mount Hardy vary in the relationship to the mineralisation orientation. All holes were designed to give the best possible (as close to perpendicular) intersection, however most drilled prospects only have a few holes and so the orientation is not well defined. In practise the intersections are at worst oriented at 45 degrees to the plane of the mineralisation (when it is known).
Sample security	The measures taken to ensure sample security.	All core and samples were under company supervision at all times prior to delivering to Genalysis/Intertek laboratories in Alice Springs
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No sampling audits have been conducted at Mount Hardy

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The Mount Hardy prospects are located on tenements EL 27892, EL 28694 and EL 29219 held by Todd River Metals Pty Ltd, which is wholly-owned by Todd River Resources Limited. All tenements are in good standing with no

	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	know impediments
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Between 2012 and 2016 significant work was conducted by TNG Limited, and has been reported to the ASX in several ASX Releases.. In 2017 through September 2018 Todd River completed two drilling programs and has reported results in several ASX releases (such as 26 April and 7 November 2018).
Geology	Deposit type, geological setting and style of mineralisation.	Exploration at Mount Hardy conducted by Todd River Resources has aimed to identify structurally controlled base metal mineralisation, similar to that already outlined at Mount Hardy and elsewhere in the Arunta at Jervois or Barrow Creek. Both areas are underlain by the Paleoproterozoic Lander Rock Beds schists and gneisses and have been intruded by Mesoproterozoic granites and are cut be major shear zones.
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: o Easting and northing of the drill collar o Elevation of RL (Reduced Level – elevation above sea level in metres) of the drill collar o Dip and azimuth of the hole o Down hole length and interception depth o Hole length	Hole location details are shown in Table 1. Interval and grade values reported here have been determined from averages of multiple portable XRF results and so approach a representative result. Laboratory analyses will be reported as available.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated.	All results are length weighted averages. No maximum or minimum cuts applied.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	Orientation not well defined. Expected true thickness ca. 60-80% or drill/intercept interval.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	See Figures 2 and 3.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	Analytical results are reported in this release.. All data used is included in Appendix 1.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	No substantial new information is available other than that reported above.
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).	Samples from the remaining Hendrix drilling have been submitted for analysis and will be reported when available.

	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Drilling will continue at Hendrix at Mount Hardy over the coming few weeks, with sample submission and analytical results reported as available. Regional drilling will also commence in the next few weeks

Appendix 2 – Analytical Results

hole_id	depth_from	depth_to	Interval (m)	Zn_pct	Pb_pct	Cu_pct	Ag_ppm
MHDD0057	283.3	284.3	1	0.0091	0.005	0.001	-0.5
MHDD0057	284.3	285.27	0.97	0.0054	0.0053	0.0033	-0.5
MHDD0057	285.27	286.3	1.03	0.0158	0.0052	0.0085	-0.5
MHDD0057	286.3	287.4	1.1	0.0104	0.0123	0.0209	-0.5
MHDD0057	287.4	288.5	1.1	0.0092	0.0073	0.0041	-0.5
MHDD0057	288.5	289.6	1.1	0.1162	0.1271	0.1134	1.1
MHDD0057	289.6	290.75	1.15	1.4877	0.7163	0.1603	10.8
MHDD0057	290.75	291.93	1.18	0.5089	0.3841	0.0515	5.1
MHDD0057	291.93	293	1.07	0.026	0.0218	0.0022	-0.5
MHDD0057	293	294	1	0.022	0.0111	0.0378	-0.5
MHDD0057	294	295	1	0.0164	0.0083	0.0008	-0.5
MHDD0057	295	296.15	1.15	0.1045	0.0871	0.0088	0.7
MHDD0057	296.15	297.4	1.25	0.0272	0.0081	0.0062	-0.5
MHDD0057	297.4	298.5	1.1	0.0128	0.0059	0.0008	-0.5
MHDD0057	298.5	299.5	1	0.0485	0.041	0.0049	-0.5
MHDD0057	299.5	300.56	1.06	0.1484	0.1035	0.0543	-0.5
MHDD0057	300.56	301.72	1.16	8.1417	2.9268	0.2416	60.3
MHDD0057	301.72	302.94	1.22	0.16	0.1015	0.1568	2.5
MHDD0057	302.94	304	1.06	0.0329	0.0448	0.0345	0.6
MHDD0057	304	305	1	0.0392	0.0492	0.0231	-0.5
MHDD0057	305	306	1	0.0111	0.0056	0.0058	-0.5
MHDD0057	426	427	1	0.0084	0.005	0.0007	-0.5
MHDD0057	427	428	1	0.0127	0.0044	-0.0001	-0.5
MHDD0057	428	429	1	0.0119	0.0079	0.0045	-0.5
MHDD0057	429	430	1	0.0795	0.0503	0.0131	-0.5
MHDD0057	430	431.1	1.1	0.0055	0.0125	0.0002	-0.5
MHDD0057	431.1	432.3	1.2	0.0466	0.0188	0.0009	-0.5
MHDD0057	432.3	433.55	1.25	0.0337	0.0189	0.0029	-0.5
MHDD0057	433.55	434.7	1.15	0.0393	0.0433	0.1059	0.6
MHDD0057	434.7	435.65	0.95	2.4425	1.1965	1.3409	18.8
MHDD0057	435.65	436.55	0.9	0.111	0.1146	0.5326	1.6
MHDD0057	436.55	437.2	0.65	0.4901	0.0508	1.0935	5.3
MHDD0057	437.2	438	0.8	0.9996	0.7319	0.9981	12.9

MHDD0057	438	439	1	20.0997	5.2311	2.8442	65
MHDD0057	439	440.07	1.07	21.139	6.2541	3.0351	108.4
MHDD0057	440.07	441	0.93	0.7843	0.3341	0.1038	2.9
MHDD0057	441	442	1	0.4024	0.182	0.031	2.3
MHDD0057	442	443	1	0.1441	0.1135	0.0385	1.6
MHDD0057	443	444	1	0.034	0.0117	0.002	-0.5
MHDD0057	444	515	71	0.0231	0.0068	0.0002	-0.5
MHDD0057	515	516	1	0.0179	0.0139	0.0007	-0.5
MHDD0057	516	517.04	1.04	0.0193	0.0172	0.0027	-0.5
MHDD0057	517.04	518	0.96	0.1703	0.1051	0.022	3
MHDD0057	518	518.55	0.55	0.1981	0.1352	0.0586	3.9
MHDD0057	518.55	519.1	0.55	6.4393	1.2757	0.5757	64
MHDD0057	519.1	520.15	1.05	0.0982	0.0199	0.0171	0.6
MHDD0057	520.15	521.2	1.05	0.0291	0.0086	0.0001	-0.5
MHDD0057	521.2	522.4	1.2	0.0518	0.0169	0.0034	-0.5
MHDD0057	522.4	522.9	0.5	4.3228	0.651	0.3564	35.6
MHDD0057	522.9	524	1.1	0.0268	0.0247	0.001	0.6
MHDD0057	524	525	1	0.0155	0.0108	0.0007	-0.5
MHDD0057	525	526	1	0.0285	0.0105	0.0018	-0.5
MHDD0057	532	533	1	0.0173	0.0104	0.0008	-0.5
MHDD0057	533	534.2	1.2	0.0177	0.0127	0.0011	-0.5
MHDD0057	534.2	535.6	1.4	0.0071	0.0383	0.0017	-0.5
MHDD0057	535.6	536.8	1.2	0.0104	0.0047	0.0006	-0.5
MHDD0057	536.8	538.08	1.28	0.2521	0.1704	0.1111	3.8
MHDD0057	538.08	539.1	1.02	7.7844	3.3802	1.0697	69.1
MHDD0057	539.1	539.6	0.5	23.3638	5.4478	2.2134	112.5
MHDD0057	539.6	540.55	0.95	2.7101	0.7169	0.4572	14.1
MHDD0057	540.55	541.26	0.71	0.7665	0.5162	0.8174	12.5
MHDD0057	541.26	542.17	0.91	0.2335	0.3173	0.0259	4.1
MHDD0057	542.17	543.35	1.18	0.9016	0.5496	0.2154	14.3
MHDD0057	543.35	544.4	1.05	0.0232	0.0331	0.0028	-0.5
MHDD0057	544.4	545.5	1.1	0.0274	0.0383	0.0008	-0.5
MHDD0057	545.5	546.3	0.8	0.0285	0.0444	0.0078	-0.5
MHDD0057	546.3	547.3	1	0.1185	0.1119	0.0718	0.9
MHDD0057	547.3	548.36	1.06	0.0196	0.0208	0.003	-0.5
MHDD0057	548.36	549.2	0.84	0.0126	0.0054	0.016	-0.5
MHDD0057	549.2	550.3	1.1	0.0358	0.0291	0.208	1.7
MHDD0057	550.3	551.43	1.13	0.0103	0.0161	0.0516	0.9
MHDD0057	551.43	552.55	1.12	0.012	0.021	0.0468	1.4
MHDD0057	552.55	553.8	1.25	0.0276	3.8127	0.5224	335.5
MHDD0057	553.8	555	1.2	0.0094	0.0187	0.0068	0.6

MHDD0057	555	556	1	0.0091	0.0125	0.0022	-0.5
MHDD0057	584.5	585.5	1	0.0148	0.018	0.0078	0.7
MHDD0057	585.5	586.5	1	0.0181	0.0085	0.0022	-0.5
MHDD0057	586.5	587	0.5	0.0212	0.0705	0.2011	14
MHDD0057	587	588	1	0.0161	0.0065	0.0066	-0.5
MHDD0057	588	589	1	0.008	0.0078	0.0066	-0.5
MHDD0058	275.27	276.2	0.93	0.0113	0.0187	0.0061	0.6
MHDD0058	276.2	277.33	1.13	0.0374	0.0492	0.0246	-0.5
MHDD0058	277.33	278.3	0.97	2	1	0.4327	13
MHDD0058	278.3	279.2	0.9	0.1334	0.0061	0.0037	-0.5
MHDD0058	279.2	280.25	1.05	0.0079	0.0039	0.0004	-0.5
MHDD0058	280.25	281.2	0.95	0.0092	0.0061	0.0034	-0.5
MHDD0058	395	396.13	1.13	0.0065	0.0043	-0.0001	-0.5
MHDD0058	396.13	397.15	1.02	0.0085	0.0156	0.0002	-0.5
MHDD0058	397.15	398.25	1.1	0.6446	0.3089	0.1632	4.6
MHDD0058	398.25	399.2	0.95	0.0165	0.0214	0.0001	-0.5
MHDD0058	399.2	400.4	1.2	0.014	0.0103	0.0004	-0.5
MHDD0058	407	407.88	0.88	0.007	0.0044	0.0008	-0.5
MHDD0058	407.88	408.6	0.72	0.0059	0.0034	0.0036	-0.5
MHDD0058	408.6	409.55	0.95	0.006	0.0029	0.0048	-0.5
MHDD0058	409.55	410.4	0.85	0.0038	0.0017	0.0001	-0.5
MHDD0058	427	428	1	0.0039	0.0064	0.0011	-0.5
MHDD0058	428	429.15	1.15	0.0044	0.0095	0.0003	-0.5
MHDD0058	429.15	430.12	0.97	0.1785	0.0327	0.1359	1.3
MHDD0058	430.12	431.12	1	0.0109	0.0212	0.0067	-0.5
MHDD0058	431.12	432.1	0.98	0.0111	0.0281	0.0093	-0.5
MHDD0058	432.1	433	0.9	0.004	0.0027	0.0004	-0.5
MHDD0058	433	434	1	0.0028	0.0029	0.0001	-0.5
MHDD0058	479	480	1	0.0704	0.0395	0.0034	0.6
MHDD0058	480	481	1	0.1207	0.0228	0.1317	0.7
MHDD0058	481	482	1	0.1972	0.028	0.024	-0.5
MHDD0058	482	483.2	1.2	0.4593	0.4652	0.4367	12.5
MHDD0058	483.2	484.4	1.2	0.0099	0.0065	0.02	-0.5
MHDD0058	484.4	485.6	1.2	0.0183	0.0078	0.2228	0.8
MHDD0058	485.6	486.6	1	0.0337	0.0227	0.0133	-0.5
MHDD0058	486.6	487.7	1.1	0.0442	0.1204	0.2322	2.6
MHDD0058	487.7	488.9	1.2	0.0248	0.0292	0.0475	-0.5
MHDD0058	488.9	490	1.1	0.0901	0.1061	0.0415	1.7
MHDD0058	490	491.2	1.2	0.1418	0.1038	0.0979	2.5
MHDD0058	491.2	492.4	1.2	0.0545	0.0373	0.0374	0.7
MHDD0058	492.4	493.6	1.2	1.8739	0.897	0.3734	27.2

MHDD0058	493.6	494.4	0.8	0.1789	0.0705	0.0254	1.5
MHDD0058	494.4	495.4	1	0.1232	0.0516	0.0098	0.7
MHDD0058	495.4	496.4	1	0.018	0.0307	0.0023	-0.5
MHDD0058	496.4	497.4	1	0.0068	0.0056	0.0012	-0.5
MHDD0058	497.4	498.4	1	0.0088	0.0047	0.0001	-0.5
MHDD0058	498.4	499.4	1	0.0115	0.0024	-0.0001	-0.5
MHDD0059	365.2	366.4	1.2	0.0138	0.0143	0.0003	-0.5
MHDD0059	366.4	367.6	1.2	0.0117	0.0083	-0.0001	-0.5
MHDD0059	367.6	368.65	1.05	0.013	0.0088	0.0005	-0.5
MHDD0059	368.65	369.7	1.05	0.0513	0.0116	0.0072	-0.5
MHDD0059	369.7	370.7	1	0.0054	0.0031	0.0034	-0.5
MHDD0059	370.7	371.8	1.1	0.0158	0.0199	0.0045	-0.5
MHDD0059	371.8	372.8	1	0.0102	0.0061	0.0004	-0.5
MHDD0059	376	377	1	0.0105	0.0042	0.0002	-0.5
MHDD0059	377	378	1	0.0218	0.0044	0.0002	-0.5
MHDD0059	378	379	1	0.0398	0.022	0.0013	-0.5
MHDD0059	379	380.03	1.03	0.322	0.5638	0.0822	6.8
MHDD0059	380.03	381	0.97	0.0336	0.0235	0.001	-0.5
MHDD0059	381	382.1	1.1	0.7656	0.2115	0.0978	5.8
MHDD0059	382.1	383.2	1.1	0.1637	0.0853	0.0022	1.1
MHDD0059	383.2	384.2	1	0.0166	0.0141	0.0004	-0.5
MHDD0059	384.2	385.2	1	0.016	0.0202	0.001	-0.5
MHDD0059	385.2	386.35	1.15	0.0123	0.0179	-0.0001	-0.5
MHDD0059	386.35	387.25	0.9	0.0094	0.0042	-0.0001	-0.5
MHDD0059	488.55	489.75	1.2	0.0037	0.0009	-0.0001	-0.5
MHDD0059	489.75	491.8	2.05	0.0013	0.002	0.001	-0.5
MHDD0059	506	507	1	0.0002	-0.0005	-0.0001	-0.5
MHDD0059	518	519	1	0.0003	-0.0005	-0.0001	-0.5
MHDD0059	542	543	1	-0.0001	-0.0005	-0.0001	-0.5
MHDD0059	563	564	1	0.0005	-0.0005	-0.0001	-0.5
MHDD0059	569	570	1	-0.0001	-0.0005	-0.0001	-0.5
MHDD0059	583.5	584.5	1	0.0012	-0.0005	0.0015	-0.5
MHDD0059	585.95	587	1.05	0.003	0.0028	0.0009	-0.5
MHDD0059	587	588	1	0.0057	-0.0005	0.0011	-0.5
MHDD0059	588	589	1	0.0075	0.0012	0.0003	-0.5
MHDD0059	589	590	1	0.003	0.0008	-0.0001	-0.5
MHDD0059	590	601	11	0.0005	-0.0005	-0.0001	-0.5
MHDD0059	603.86	604.83	0.97	0.0015	0.0009	0.0003	-0.5
MHDD0059	604.83	606	1.17	0.01	-0.0005	0.005	-0.5
MHDD0059	606	607.1	1.1	0.0098	-0.0005	0.0027	-0.5
MHDD0059	607.1	608.3	1.2	0.0113	-0.0005	0.0047	0.6

MHDD0059	608.3	609.13	0.83	0.0019	0.001	-0.0001	-0.5
MHDD0059	613	614	1	0.0006	-0.0005	-0.0001	-0.5
MHDD0060	276	277	1	0.0078	0.0043	0.0018	-0.5
MHDD0060	277	278	1	0.0105	0.0036	0.0271	-0.5
MHDD0060	278	279	1	0.0091	0.0031	0.0003	-0.5
MHDD0060	285	286	1	0.0235	0.0162	-0.0001	-0.5
MHDD0060	286	287	1	0.0821	0.0527	0.0277	1.1
MHDD0060	287	288	1	0.0077	0.0131	0.0001	-0.5