



## West 45 – Mining Contract Extension

### Highlights:

- Red River has awarded PYBAR Mining Services an extension to the West 45 underground mining contract which was due to expire in January 2019.
- West 45 mining contract extension will run for a maximum of 2 years or until cessation of West 45 mine life
- Red River commencing 4,500m underground diamond drilling program to further extend West 45 mine life

Red River Resources Limited (ASX: RVR) (“Red River” or the “Company”) is pleased to announce that the Company has awarded an extension to the West 45 underground mining contract to PYBAR Mining Services. The West 45 mining contract extension commences on January 2019, when the current contract finishes, and will run for a maximum of 2 years or until cessation of West 45 mine life.

West 45 has an Ore Reserve of 567kt @ 11.6% Zn Eq. (refer to Red River ASX release dated 20 December 2017), and Red River is commencing a 4,500m underground diamond drilling program at West 45 with the goal of further extending the West 45 mine life.

PYBAR Mining Services (PYBAR) are an Australian based and owned underground mining contractor with a long track record in metalliferous underground mining contracts within Australia, and have an outstanding reputation in terms of safety, execution and quality.

Figure 1 West 45 Portal



## About PYBAR Mining Services

PYBAR is a nationwide provider of mining services with core competencies in metalliferous underground hard rock mining. Founded in 1993, PYBAR's success to date is based on safe, rapid underground infrastructure development and consistent reliable production, delivering on projects from large established mining operations to greenfield developments. Headquartered in Orange, Central NSW, and privately owned, the PYBAR Group has assisted in the establishment of infrastructure and operations across Australia.

The PYBAR Group provides a comprehensive service to the mining industry through a number of businesses including PYBAR Mining Services as underground contractors, HMR Drilling Services (exploration drilling) and JTMEC (mining electrical). PYBAR has achieved a position of the third largest underground hard rock mining contractor in Australia by focussing on productivity and the needs of their clients.

For further information please refer to <http://www.pybar.com.au> or e-mail [pybar@pybar.com.au](mailto:pybar@pybar.com.au)

## About Red River Resources (ASX: RVR)

RVR is the leading ASX base metal producer, with its key asset being the Thalanga Operation in Northern Queensland. RVR commenced copper, lead and zinc concentrate production at the Thalanga Operation in September 2017 and RVR is focused on maximising returns from the Operation by increasing plant throughput and extending mine life through increasing Mineral Resources and Ore Reserves at deposits currently in the mine plan (West 45, Far West and Waterloo), by potentially converting Mineral Resources into Ore Reserves at Liontown and Orient and by continuing to aggressively explore our growing pipeline of high quality targets within the surrounding area.

On behalf of the Board,

**Mel Palancian**

**Managing Director**

Red River Resources Limited

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For further information, please visit Red River's website or contact:

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Table 1 Thalanga West 45 Ore Reserve (>6% Zn Eq.)

Reserve Class	Tonnage (kt)	Cu (%)	Pb (%)	Zn (%)	Au (g/t)	Ag (g/t)	Zn Eq. (%)
Proved	101	0.3	2.0	4.6	0.3	38	8.4
Probable	466	0.4	3.0	6.8	0.3	56	12.4
<b>Total</b>	<b>567</b>	<b>0.4</b>	<b>2.8</b>	<b>6.4</b>	<b>0.3</b>	<b>53</b>	<b>11.6</b>

Please refer to ASX release “Red River extends mine life at West 45, 20 December 2017” for further information.

JORC (Tonnages and grades are rounded. Discrepancies in totals may exist due to rounding.

Zinc equivalent (Zn Eq.) has been calculated using the metal selling prices, recoveries and other assumptions contained in Appendices of this announcement.

It is Red River’s opinion that all elements included in the metal equivalent calculation have a reasonable potential to be recovered and sold.

Proved and Probable Reserves are included within (and not in addition to) the West 45 Mineral Resource estimate

## COMPETENT PERSONS STATEMENT

### West 45 Ore Reserve

The information in this report that relates to the estimation and reporting of the West 45 Ore Reserve is based on and fairly represents, information and supporting documentation compiled by Mr Mel Palancian who is a Member of The Australasian Institute of Mining and Metallurgy and a full time employee of Red River Resources.

Mr Palancian has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’.

Mr Palancian consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

## Zinc Equivalent Calculation

The net smelter return zinc equivalent (Zn Eq.) calculation adjusts individual grades for all metals included in the metal equivalent calculation applying the following modifying factors: metallurgical recoveries, payability factors (concentrate treatment charges, refining charges, metal payment terms, net smelter return royalties and logistic costs) and metal prices in generating a zinc equivalent value for copper (Cu), lead (Pb), zinc (Zn), gold (Au) and silver (Ag).

Red River has selected to report on a zinc equivalent basis, as zinc is the metal that contributes the most to the net smelter return zinc equivalent (Zn Eq.) calculation. It is the view of Red River Resources that all the metals used in the Zn Eq. formula are expected to be recovered and sold.

Where:

**Metallurgical Recoveries** are derived from historical metallurgical recoveries from test work carried out the Thalanga deposit. The Metallurgical Recovery for each metal is shown below in Table 1.

**Metal Prices and Foreign Exchange** assumptions are set as per internal Red River price forecasts and are shown below in Table 1.

Table 1 Metallurgical Recoveries and Metal Prices

Metal	Metallurgical Recoveries (West 45)	Price
Copper	80%	US\$3.00/lb
Lead	80%	US\$0.90/lb
Zinc	89%	US\$1.00/lb
Gold	-	US\$1,200/oz
Silver	70%	US\$17.00/oz
FX Rate: A\$0.75:US\$1		

**Payable Metal Factors** are calculated for each metal and make allowance for concentrate treatment charges, transport losses, refining charges, metal payment terms and logistic costs. It is the view of Red River that three separate saleable base metal concentrates will be produced at Thalanga. Payable metal factors are detailed below in Table 2.

Table 2 Payable Metal Factors

Metal	Payable Metal Factor
Copper	Copper concentrate treatment charges, copper metal refining charges copper metal payment terms (in copper concentrate), logistic costs and net smelter return royalties
Lead	Lead concentrate treatment charges, lead metal payment terms (in lead concentrate), logistic costs and net smelter return royalties
Zinc	Zinc concentrate treatment charges, zinc metal payment terms (in zinc concentrate), logistic costs and net smelter return royalties
Gold	Gold metal payment terms (in copper and lead concentrates), gold refining charges and net smelter return royalties
Silver	Silver metal payment terms (in copper, lead and zinc concentrates), silver refining charges and net smelter return royalties

The zinc equivalent grade is calculated as per the following formula:

$$\text{Zn Eq.} = (\text{Zn\%} * \text{ZnMEF}) + (\text{Cu\%} * \text{CuMEF}) + (\text{Pb\%} * \text{PbMEF}) + (\text{Au ppm} * \text{AuMEF}) + (\text{Ag ppm} * \text{AgMEF})$$

The following metal equivalent factors used in the zinc equivalent grade calculation has been derived from metal price x Metallurgical Recovery x Payable Metal Factor, and have then been adjusted relative to zinc (where zinc metal equivalent factor = 1).

Table 3 Metal Equivalent Factors

Metal Equivalent Factor	Copper CuMEF	Lead PbMEF	Zinc ZnMEF	Gold AuMEF	Silver AgMEF
West 45	3.3	0.9	1.0	0.0	0.025