# RedRiver

Erine Strander The

RESOURCES LIMITED

AGM PRESENTATION October 2018

#### **DISCLAIMER & COMPLIANCE STATEMENTS**

The information contained in this presentation should be read in conjunction with and subject to the cautionary statements contained on this page and the statements contained in and referred to elsewhere in this presentation, including the competent persons statements referred to on slide 22 and the ASX announcements to which this presentation refers.

#### **Forward Looking Statements**

This presentation may contain forward looking statements that are subject to risk factors associated with the mining and resources industry. It is believed that the expectations reflected in these statements are reasonable, but they may be affected by a range of variables which could cause actual results or trends to differ materially, including but not limited to: price fluctuations, actual demand, currency fluctuations, geotechnical factors, drilling and exploration results, development progress, operating results, engineering estimates, reserve estimates, loss of market, industry competition, environmental risks, physical risks, legislative, fiscal and regulatory developments, economic and financial markets conditions in various countries, approvals and cost estimates



#### **GROWING ASX BASE METAL PRODUCER**

- ASX-listed zinc, lead & copper producer with significant gold and silver credits
- Fully funded & debt free

PRODUCE

DEVELOP

GROW

3

- Thalanga Operation, Queensland restarted on time and under budget
- Far West on track to start production in 2019
- West 45 infill and extension drilling ongoing
  - Doubled Mineral Resources in 3.5 years & discovered Liontown East
  - Increase production profile West 45 & Far West
  - All Mineral Resources are open at depth and/or along strike
- Control 600km<sup>2</sup> of a highly productive and prospective VHMS District
  - Numerous targets identified and scheduled for drill testing
- Grow RVR beyond Thalanga

### **CORPORATE OVERVIEW**

CAPITAL STRUCTURE						
Current Share Price	A\$	\$0.20				
Shares on Issue	#	489.9 million				
Options on Issue <sup>1</sup>	#	9.35 million				
Market Capitalisation	A\$	\$98 million				
Cash <sup>2</sup>	A\$	\$17.4 million				
Debt	A\$	Nil				

1. 9.35 million options on issue with a volume weighted average exercise price of 25.7cps

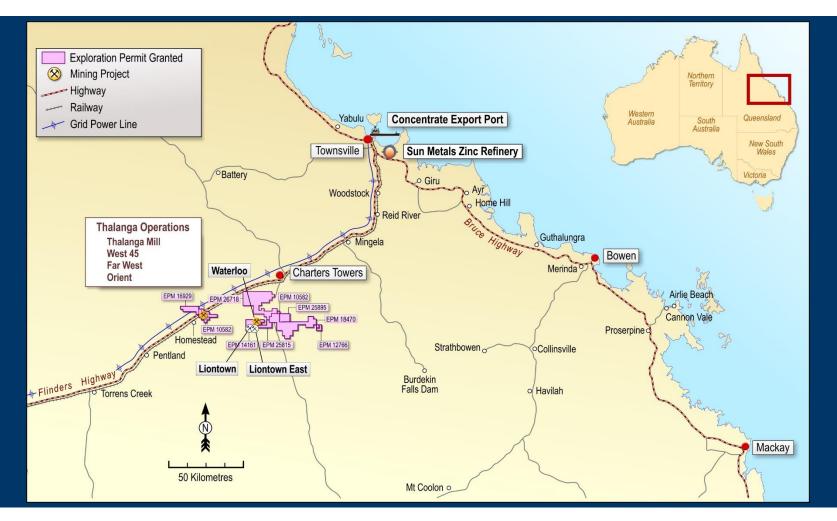
2. Cash balance as at 30 September 2018



	BOARD & SENIOR MANAGEMENT
BRETT FLETCHER	Non Executive Chairman (Mining Engineer)
MEL PALANCIAN	Managing Director (Mining Engineer)
DONALD GARNER	Executive Director (Geologist/Corporate Finance)
MARK HANLON	Non-Executive Director (Finance & Commercial)
ROD LOVELADY	Chief Financial Officer (Finance & Commercial)
CAMERON BODLEY	Company Secretary
KARL SPALECK	Thalanga GM (Metallurgist)

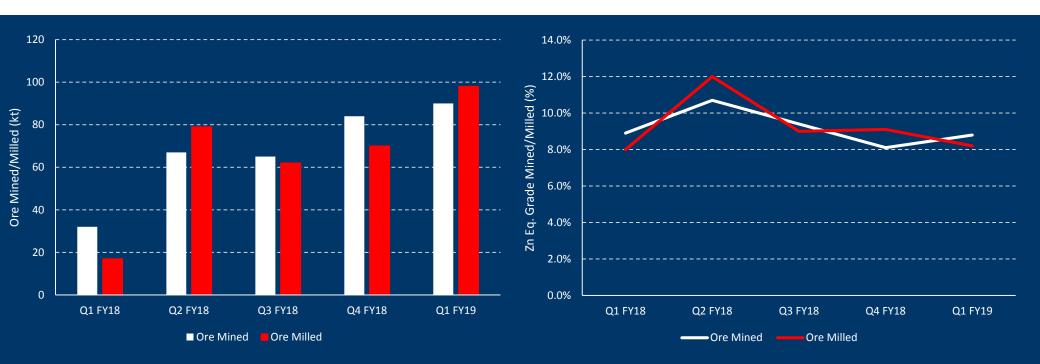


#### THALANGA OPERATION – OUTSTANDING LOCATION





#### THALANGA OPERATIONS - IN PRODUCTION



• FY18

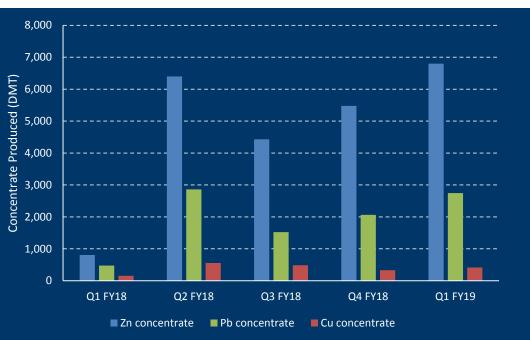
Ore mined: 248kt @ 9.2% Zn Eq. and
Ore processed: 228kt @ 10.0% Zn Eq.

 Q1 FY19 record tonnes mined 90kt @ 8.8% Zn Eq. and milled 98kt @ 8.2% Zn Eq.

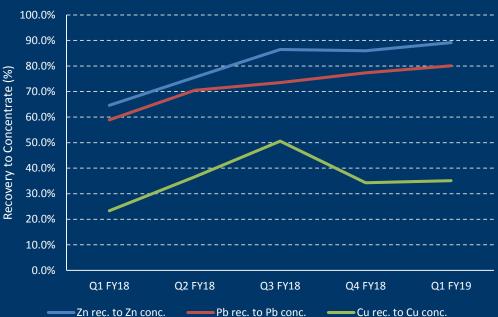
- West 45 ramped up to 350ktpa
- Process Plant optimised to 500ktpa using 2 of 3 grinding mills



#### THALANGA OPERATIONS - IN PRODUCTION



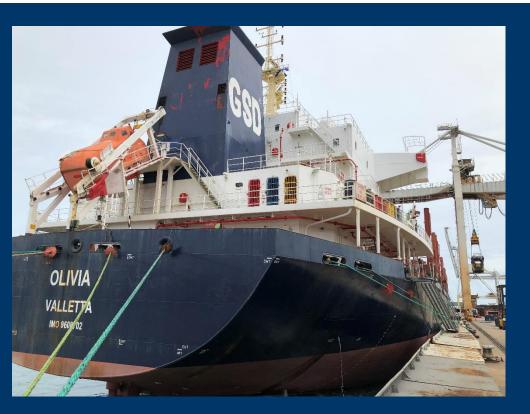
- FY18 Production
  - -17,110t Zn concentrate @ 56.6% Zn,
  - 6,920t Pb concentrate @ 60.3% Pb and
  - -1,522t Cu concentrate @ 25.3% Cu



- Record Zn concentrate production of 6,800t @ 55.0% Zn in Q1 FY19
- Producing high quality, high grade concentrates
- Recoveries improving; additional ~35% of copper recovered to lead concentrate



#### FY18 KEY FINANCIALS

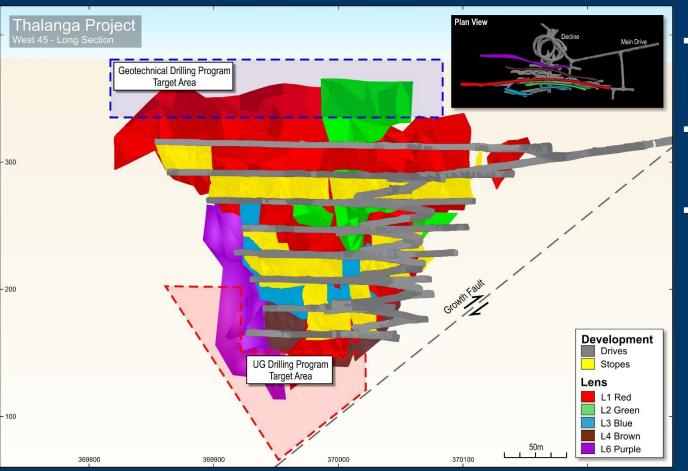


- Revenue of \$51m
- EBITDA of \$8.1m

- C1 Cash Cost of US\$0.55/lb payable Zn metal
- C3 Cost of US\$1.23/lb payable Zn metal



#### WEST 45 - IN PRODUCTION



- Mostly developed; 2 upper levels remain to be developed
- Shallow drilling program successfully completed
- UG drilling program to define Lens 4 & Lens 6 in progress

(1) Contract extension commences in January 2019 and will run for a maximum of 2 years or until cessation of West 45 mine life.



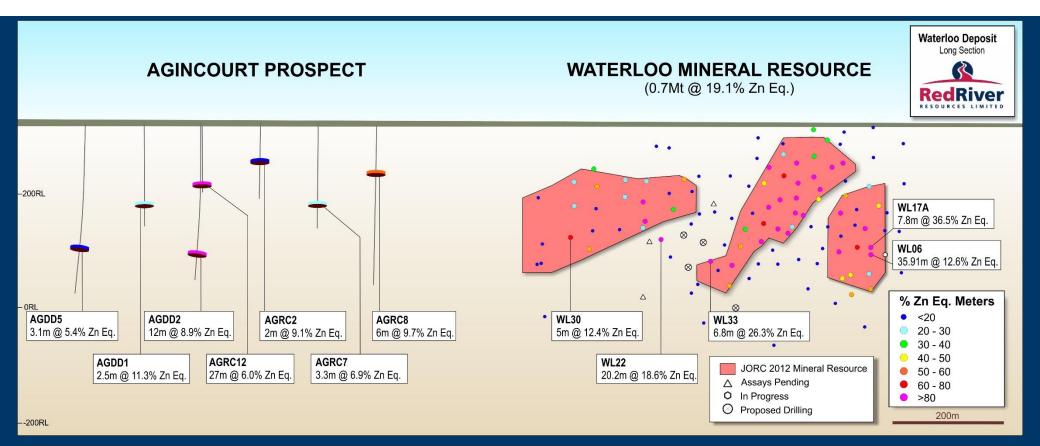
#### FAR WEST - MOVING FORWARD



(1) Refer to ASX releases dated 21 Nov 2017 & 4 Dec 2017 Please refer to Presentation Appendices for detailed Mineral Resource statements



### WATERLOO- ADVANCING TO PRODUCTION

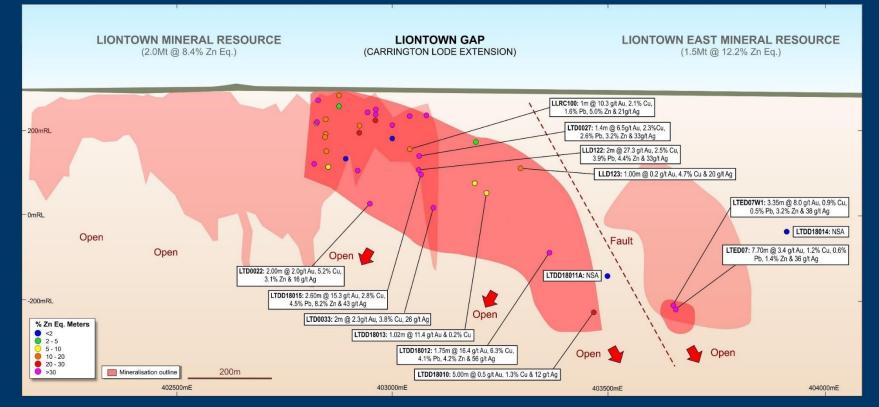


- Project development focus moving to Waterloo initial infill and extension drilling program completed
- Current Mineral Resource of 0.7Mt @ 19.1% Zn Eq. targeting updated Mineral Resource in late 2018



Please refer to Presentation Appendices for detailed Mineral Resource statements

#### LIONTOWN PROJECT – GETTING BIGGER

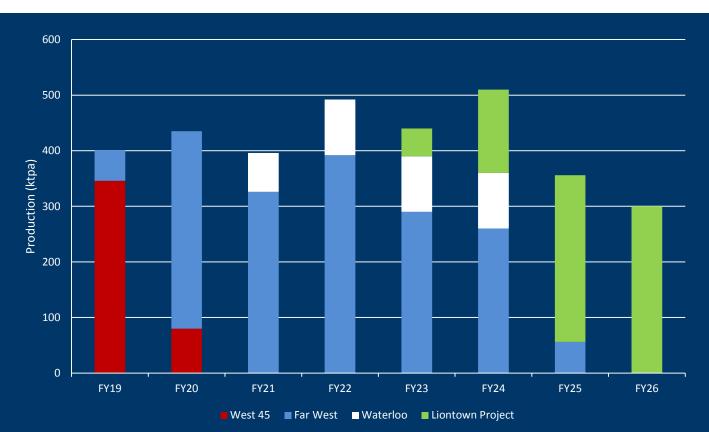


- Maiden Liontown East Mineral Resource of 1.5Mt @ 12.2% Zn Eq.
- Liontown Project Mineral Resource of 3.6Mt @ 10.0% Zn Eq.
- Copper-Gold rich mineralisation discovered in the GAP; system open at strike and depth



Please refer to Presentation Appendices for detailed Mineral Resource statements

### **EXTENDING OPERATIONAL LIFE**

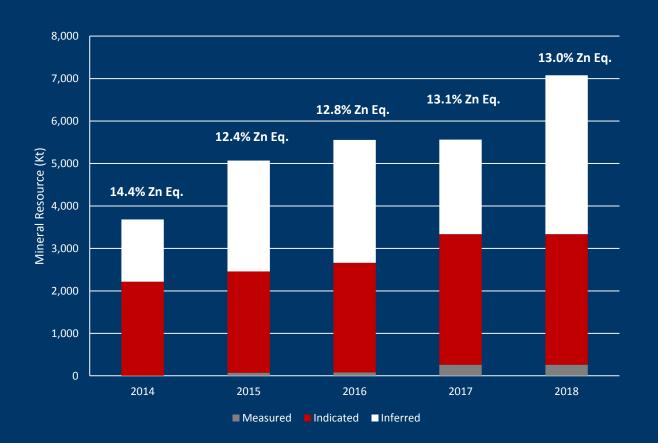


- Thalanga Operations Production Target in excess of 7 years life
- Demonstrated mill capacity currently 500ktpa (utilising 2 ball mills from 3 mill grinding circuit)
- Ability to further increase capacity by utilising 3<sup>rd</sup> ball mill (>650ktpa)
- Seeking to target additional deposits within existing RVR portfolio to create value

The modifying factors used in the estimation of the Ore Reserve were also applied to the Mineral Resources in generation of the production target. There is a low level of geological confidence associated with the Inferred Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production targets will be realised.



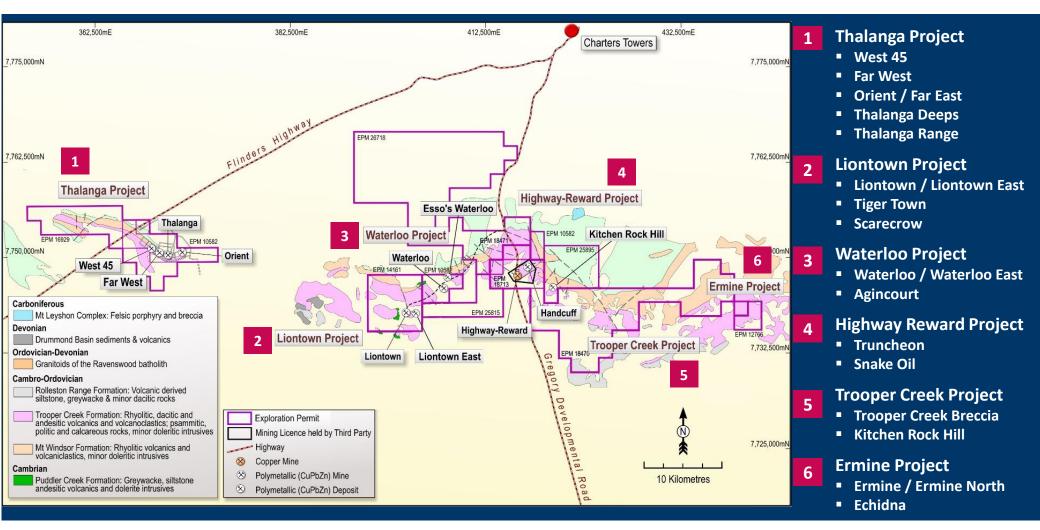
#### **GROWING THE MINERAL RESOURCE BASE**



- Thalanga Mineral Resource has grown by 92% since acquisition in 2014
- Discovery cost to date of \$3.45/t of Mineral Resource
- Drilled 42,130m in FY18
- Driven by exploration success West 45, Far West and Liontown East
- Confidence in Mineral Resources has also increased – 50% growth in Measured and Indicated classification
- Ore Reserves have grown from zero to 2.1Mt @ 11.9% Zn Eq.



#### **OUTSTANDING HIGH-GRADE VHMS REGIONAL POTENTIAL**





#### **OUTSTANDING EXPLORATION PIPELINE**





## Prosperity Through Lean & Clever Resource Development



### THALANGA OPERATIONS ORE RESERVE STATEMENT

	Classification	Tonnage (kt)	Cu (%)	Pb (%)	Zn (%)	Au (g/t)	Ag (g/t)	Zn Eq. (%) <sup>(3</sup>
	Proved	101	0.3	2.0	4.6	0.3	38	8.4
WEST 45 <sup>(1)</sup>	Probable	466	0.4	3.0	6.8	0.3	56	12.4
	Total	567	0.4	2.8	6.4	0.3	53	11.6
	Proved	48	1.3	1.0	4.4	0.0	27	10.1
FAR WEST <sup>(2)</sup>	Probable	1,486	1.3	1.6	5.0	0.2	46	12.1
	Total	1,534	1.3	1.6	5.0	0.2	45	12.0
TOTAL ORE RESERVES								
	Proved	149	0.6	1.7	4.8	0.2	34	8.9
THALANGA OPERATIONS	Probable	1,952	1.1	1.9	5.4	0.2	48	12.2
	Total	2,101	1.1	1.9	5.4	0.2	47	11.9

(1) Refer to ASX Announcement dated 20 December 2017 "Red River extends mine life at West 45"

(2) Refer to ASX Announcement dated 21 November 2017 "Far West Reserve and Resource Update Extends Mine Life" and supplementary release dated 4 December 2017

(3) Zinc equivalent (Zn Eq.) has been calculated using the metal selling prices, recoveries and other assumptions contained pages 15 & 16 of this presentation.

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

Table subject to rounding errors, Please refer to Competent Persons Statements for appropriate Competent Persons Statement

### THALANGA OPERATIONS MINERAL RESOURCE STATEMENT

	Classification	Tonnage (kt)	Cu (%)	Pb (%)	Zn (%)	Au (g/t)	Ag (g/t)	Zn Eq. (%) <sup>(6)</sup>
	Measured	210	0.8	5.5	11.9	0.5	122	22.4
AUFOT 4F(1)	Indicated	312	0.4	2.7	6.7	0.2	45	11.7
NEST 45 <sup>(1)</sup>	Inferred	60	0.5	2.4	5.0	0.3	51	10.0
	Total	582	0.6	3.7	8.4	0.3	73	15.4
	Measured	52	1.4	1.3	5.3	0.0	32	12.0
AR WEST <sup>(2)</sup>	Indicated	1,491	1.7	2.2	6.6	0.2	61	15.7
AR WEST	Inferred	150	1.4	2.3	6.5	0.1	53	14.6
	Total	1,693	1.6	2.1	6.5	0.2	59	15.5
	Measured	-	-	-	-	-	-	-
DRIENT <sup>(3)</sup>	Indicated	496	0.9	1.8	7.7	0.2	44	13.4
JRIENT	Inferred	44	0.8	1.8	10.9	0.2	46	16.2
	Total	540	0.9	1.8	7.9	0.2	44	13.6
	Measured	-	-	-	-	-	-	-
WATERLOO <sup>(4)</sup>	Indicated	406	2.7	2.1	13.4	1.4	68	24.6
	Inferred	301	0.9	0.9	7.9	0.4	27	11.8
	Total	707	1.9	1.6	11.0	0.9	50	19.1
	Measured	-	-	-	-	-	-	-
IONTOWN <sup>(5)</sup>	Indicated	367	0.5	1.8	4.6	1.3	21	8.3
	Inferred	3,185	0.5	2.0	5.9	0.7	28	10.2
	Total	3,553	0.5	2.0	5.7	0.8	27	10.0
<b>OTAL MINERAL RESOU</b>	RCES AT THE THALANGA	<b>OPERATIONS (WEST 4</b>	5 + THALANGA	FAR WEST + ORIE	NT + WATERLOO	+ LIONTOWN)		
	Measured	262	0.9	4.7	10.6	0.4	104	20.3
THALANGA PROJECT	Indicated	3,072	1.4	2.1	7.4	0.5	53	15.2
	Inferred	3,741	0.6	1.9	6.1	0.7	29	10.6
	Total	7,075	0.9	2.1	6.8	0.6	42	13.0

(1) Refer to ASX Announcement 20 December 2017 "Red River extends mine life at West 45"

(2) Refer to ASX Announcement 21 November 2017 "Far West Reserve and Resource Update Extends Mine Life" and supplementary release dated 4 December 2017

(3) Refer to ASX Announcement 11 February 2015 "Thalanga Project – Updated Mineral Resource Estimate"

(4) Refer to ASX Announcement 24 April 2015 "Waterloo Deposit – Updated Mineral Resource Estimate"

(5) Refer to ASX Announcement 24 June 2015 "Liontown Deposit JORC 2012 Resource Estimate" & 18 July 2018 "Maiden Liontown East Mineral Resource"

(6) Zinc equivalent (Zn Eq.) has been calculated using the metal selling prices, recoveries and other assumptions contained pages 15 & 16 of this presentation.

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

Table subject to rounding errors, Please refer to Competent Persons Statements for appropriate Competent Persons Statement

#### ZINC EQUIVALENT CALCULATION FACTORS

#### 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 at the respective deposits. 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.

FX Rate: A\$0.85:US	\$1		West 45, Thalanga Far West, Orient & Liontown (Fresh Resource)	Waterloo (Fresh Resource)	Waterloo (Transition Resource)
METAL	PRICE	UNITS	RECOVERIES	RECOVERIES	RECOVERIES
Copper	US\$/lb	US\$3.00	80%	80%	58%
Lead	US\$/lb	US\$0.90	70%	70%	0%
Zinc	US\$/lb	US\$1.00	88%	88%	76%
Gold	US\$/oz	US\$1,200	15%	50%	30%
Silver	US\$/oz	US\$17.00	65%	65%	58%

**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 1 METALLURGICAL RECOVERIES AND METAL PRICES

#### ZINC EQUIVALENT CALCULATION FACTORS

	TABLE 2 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:

Zn Eq. = (Zn% \*ZnMEF) + (Cu%\*CuMEF) + (Pb%\*PbMEF) + (Au ppm\*AuMEF) + (Ag ppm\*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 FACTOR (MEF)							
Resource	Copper (CuMEF)	Lead (PbMEF)	Zinc (ZnMEF)	Gold (AuMEF)	Silver (AgMEF)		
West 45, Thalanga Far West, Orient & Liontown (Fresh	3.3	0.9	1.0	0.5	0.025		
Waterloo (Fresh)	3.4	0.75	1	0.5	0.025		
Waterloo (Transition)	2.5	0.0	0.84	0.4	0.01		

#### **COMPETENT PERSONS STATEMENTS**

#### **Competent Persons' Statement – Mineral Resources**

The information in this report that relates to the estimation and reporting of the Far West, West 45, Orient, Waterloo and Liontown Mineral Resources is based on and fairly represents, information and supporting documentation compiled by Mr Stuart Hutchin who is a Member of The Australasian Institute of Mining and Metallurgy, Member of the Australian Institute of Geoscientists and a full time employee of Mining One Consultants Pty Ltd. Mr Hutchin 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'.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements 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 original market announcements.

#### **Competent Person's Statement – Ore Reserves**

The information in this report that relates to the estimation and reporting of the West 45 and Far West Ore Reserves are 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'.

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 and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements 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 original market announcement.

#### **Competent Person's Statement - Exploration Results**

The information in this report that relates to Exploration Results is based on information compiled by Mr Peter Carolan who is a member of the Australasian Institute of Mining and Metallurgy, and a full time employee of Red River Resources Ltd., and who has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activities being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves' (JORC Code). Mr Carolan consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.