

Thalanga Operations Ore Reserve and Mineral Resource Statement

Ore Reserves	Classification	Tonnage (Kt)	Cu (%)	Pb (%)	Zn (%)	Au (g/t)	Ag (g/t)	Zn Eq. (%)
West 45⁽¹⁾	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
	Total	567	0.4	2.8	6.4	0.3	53	11.6
Far West⁽²⁾	Proved	48	1.3	1.0	4.4	0.0	27	10.1
	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
Thalanga Project	Proved	149	0.6	1.7	4.8	0.2	34	8.9
	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 21 November 2017 "Red River extends mine life at West 45"

(2) Refer to ASX Announcement dated 20 December 2017 "Far West Reserve and Resource Update Extends Mine Life"
Zinc equivalent (Zn Eq.) has been calculated using the metal selling prices, recoveries and other assumptions contained in the Reserve and Resources statement.

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 in referenced releases for appropriate Competent Persons Statement

Thalanga Operations Mineral Resource Estimate

Mineral Resources	Classification	Tonnage (Kt)	Cu (%)	Pb (%)	Zn (%)	Au (g/t)	Ag (g/t)	Zn Eq. (%)
West 45⁽¹⁾	Measured	210	0.8	5.5	11.9	0.5	122	22.4
	Indicated	312	0.4	2.7	6.7	0.2	45	11.7
	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
Far West⁽²⁾	Measured	52	1.4	1.3	5.3	0.0	32	12.0
	Indicated	1,491	1.7	2.2	6.6	0.2	61	15.7
	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
Orient⁽³⁾	Measured	-	-	-	-	-	-	-
	Indicated	496	0.9	1.8	7.7	0.2	44	13.4
	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
Waterloo⁽⁴⁾	Measured	-	-	-	-	-	-	-
	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
Liontown⁽⁵⁾	Measured	-	-	-	-	-	-	-
	Indicated	367	0.5	1.8	4.6	1.3	21	8.3
	Inferred	1,671	0.5	1.5	4.6	0.8	26	8.4
	Total	2,038	0.5	1.6	4.6	0.8	25	8.4
Liontown East⁽⁶⁾	Measured	-	-	-	-	-	-	-
	Indicated	-	-	-	-	-	-	-
	Inferred	1,515	0.5	2.5	7.3	0.7	29	12.2
	Total	1,515	0.5	2.5	7.3	0.7	29	12.2
Thalanga Project	Measured	262	0.9	4.7	10.6	0.4	104	20.3
	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 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) Refer to ASX Announcement dated 11 February 2015 "Thalanga Project – Updated Mineral Resource Estimate"

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

(5) Refer to ASX Announcement dated 24 June 2015 "Liontown Deposit JORC 2012 Resource Estimate"

(6) Refer to ASX Announcement dated 18 July 2018 "Maiden Liontown East Mineral Resource"

Zinc equivalent (Zn Eq.) has been calculated using the metal selling prices, recoveries and other assumptions contained in the Reserve and Resources statement.

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



ACN 100 796 754

COMPETENT PERSON'S STATEMENT – MINERAL RESOURCES

Liontown East Mineral Resource

The information in this report that relates to the estimation and reporting of the Liontown East Mineral Resource is based on and fairly represents, information and supporting documentation 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.

Mr Carolan 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 Carolan consents to the inclusion in the report of the matters based on the information in the form and context in which it appears. The information in this report that relates to database compilation, geological interpretation and mineralisation wireframing, project parameters and costs and overall supervision and direction of the Liontown East Mineral Resource estimation is based on and fairly represents, information and supporting documentation compiled under the overall supervision and direction of Mr Carolan.

Far West, West 45, Orient, Waterloo and Liontown 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 are 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'.

Mr Hutchin consents to the inclusion in the report of the matters based on the information in the form and context in which it appears. The information in this report that relates to database compilation, geological interpretation and mineralisation wireframing, project parameters and costs and overall supervision and direction of the Liontown Mineral Resource estimation is based on and fairly represents, information and supporting documentation compiled under the overall supervision and direction of Mr Hutchin.

COMPETENT PERSON'S STATEMENT – ORE RESERVES

The information in this report that relates to the estimation and reporting of the West 45 and Thalanga 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.

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.

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	Long Term Price	Metallurgical Recoveries		
		West 45, Thalanga Far West, Orient Lione town & Lione town East (Fresh Resource)	Waterloo (Fresh Resource)	Waterloo (Transition Resource)
Copper	US\$3.00/lb	80%	80%	58%
Lead	US\$0.90/lb	75-80%	70%	0%
Zinc	US\$1.00/lb	89%	89%	76%
Gold	US\$1,200/oz	0%-47%	50%	30%
Silver	US\$17.00/oz	65%	65%	58%

FX Rate: A\$0.85: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

Project	Copper	Lead	Zinc	Gold	Silver
West 45, Orient	3.3	0.9	1.0	0.0	0.025
Thalanga Far West	3.3	0.9	1.0	0.5	0.025
Liontown & Liontown East	3.3	0.9	1.0	0.5	0.025
Waterloo (Fresh)	3.4	0.75	1.0	0.5	0.025
Waterloo (Transition)	2.5	0.0	0.84	0.4	0.01