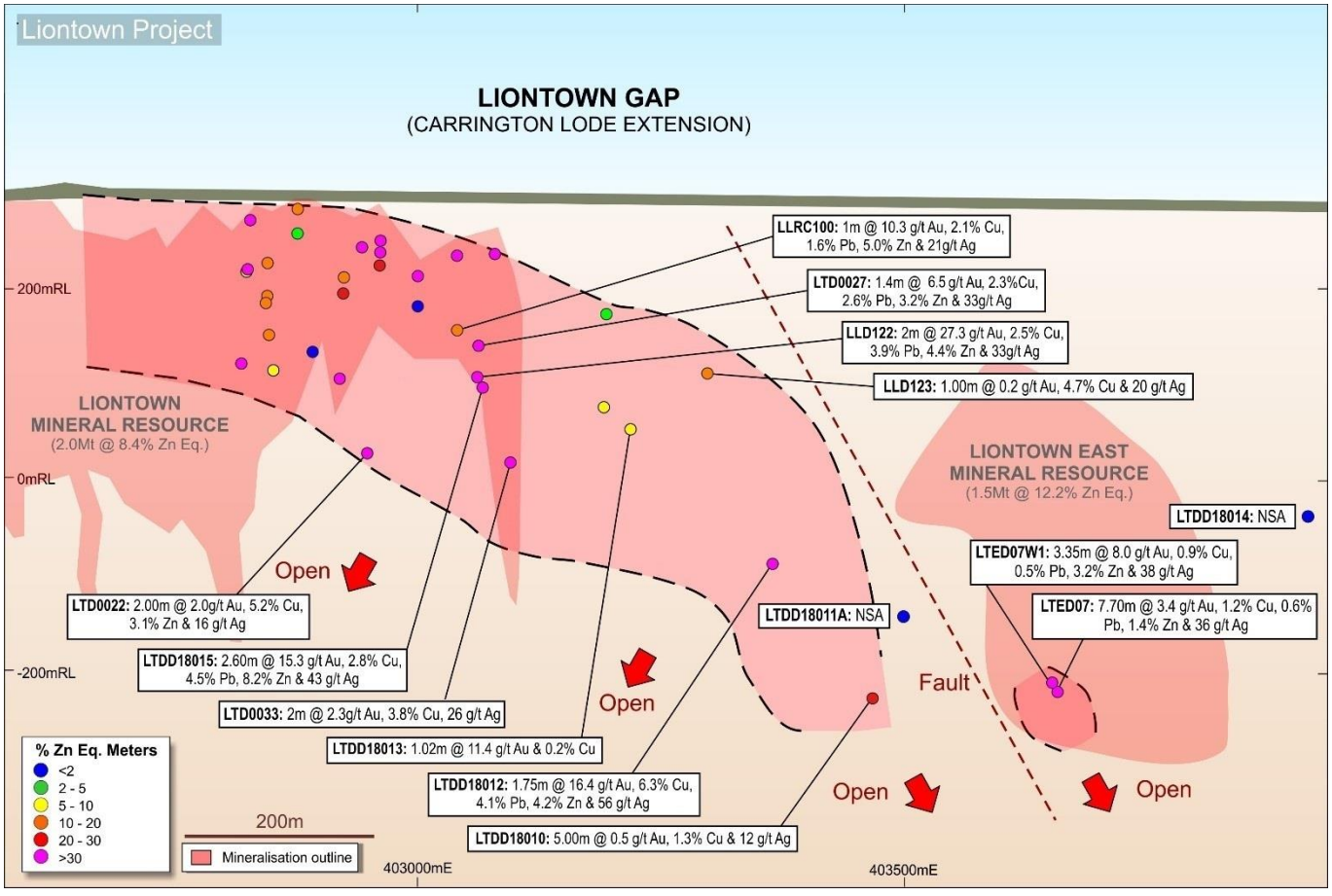
Red River hits high-grade gold, copper and zinc in the "gap" at Liontown

Highlights:

- **Drilling at the Liontown "gap" has intersected high-grade mineralisation.**
- **The results in the "gap" between Liontown and Liontown East, potentially link the two deposits and may significantly enhance RVR's mining strategy.**
- **Highlights include:**
  - **LTDD18012: 1.75m @ 16.4 g/t Au, 6.3% Cu, 4.1% Pb, 4.2% Zn & 56g/t Ag, (38.2% Zn Eq.) from 419.05m down-hole**
  - **LTDD18015: 2.6m @ 15.3 g/t Au, 2.8% Cu, 4.5% Pb, 8.2% Zn & 43g/t Ag, (30.2% Zn Eq.) from 236.3m down-hole**
- **These results provide confidence in historic drill data and confirm the high grade, gold-rich polymetallic nature of the area.**

Figure 1 Carrington Lode Extended Long Section



Red River Resources Limited (ASX: RVR), is pleased to report further high-grade assay results from drilling at the Liontown Project, part of the Company's Thalanga Operations in Northern Queensland. The Liontown Project comprises the significant deposits at Liontown and Liontown East which have a total Mineral Resource of 3.6Mt at 10.0% Zinc Equivalent.

Red River commenced drilling in the gap area between the two deposits ("Liontown Gap") following the completion of drilling for the maiden Liontown East Mineral Resource (1.5Mt at 12.2% Zinc Eq.). Drilling has returned exceptional intercepts of gold-rich polymetallic mineralisation, demonstrating continuity between the Liontown and Liontown East Mineral Resources. Highlights include:

- LTDD18012 **1.75m @ 38.2% Zn Eq.** (6.3% Cu, 4.1% Pb, 4.2% Zn, 16.4 g/t Au & 56 g/t Ag) from 419.05m down-hole;
  - including **0.58m @ 50.3% Zn Eq.** (3.6% Cu, 11.1% Pb, 6.2% Zn, 40.0 g/t Au & 94g/t Ag) from 419.6m down-hole
- LTDD18015 **2.6m @ 30.2% Zn Eq.** (2.8% Cu, 4.5% Pb, 8.2% Zn, 15.3 g/t Au & 43 g/t Ag) from 236.3m down-hole;
  - including **0.9m @ 36.4% Zn Eq.** (2.6% Cu, 6.2% Pb, 8.9% Zn, 23.2 g/t Au & 68g/t Ag) from 238.0m down-hole

Results to date provide confidence in the historical drill results and confirm the high grade, gold-rich nature of the Carrington Lode mineralisation. The drilling supports potential strike extensions of the known Liontown Mineral Resource of more than 500m and ultimately to link the Liontown and Liontown East Mineral Resources. Red River plans to continue drilling the Liontown Gap area with the objective of continuing to define gold-rich polymetallic mineralisation to extend the Liontown Mineral Resource into this area.

Figure 2 Carrington Lode Cross Section

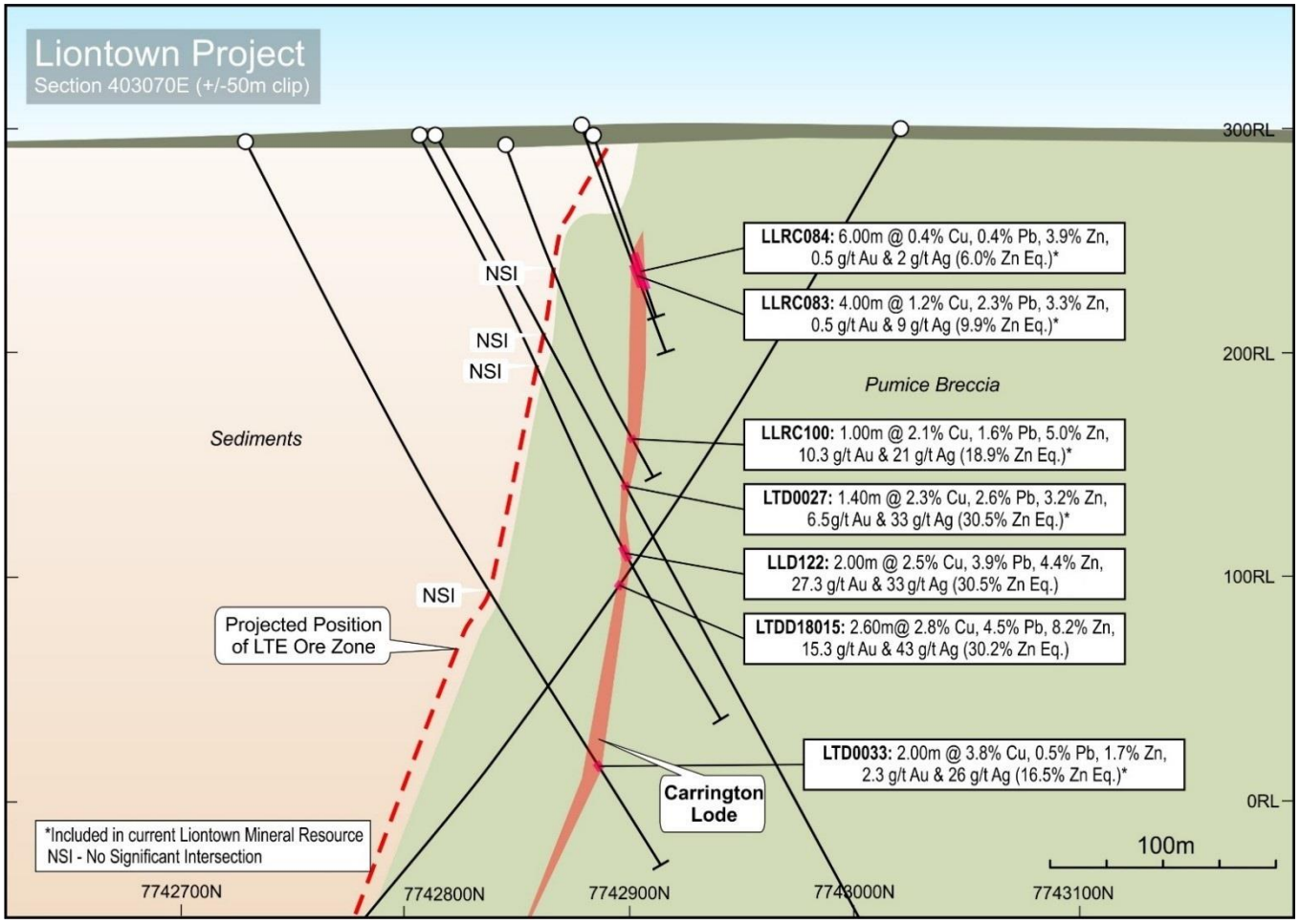


Figure 3 Liontown Project Long Section

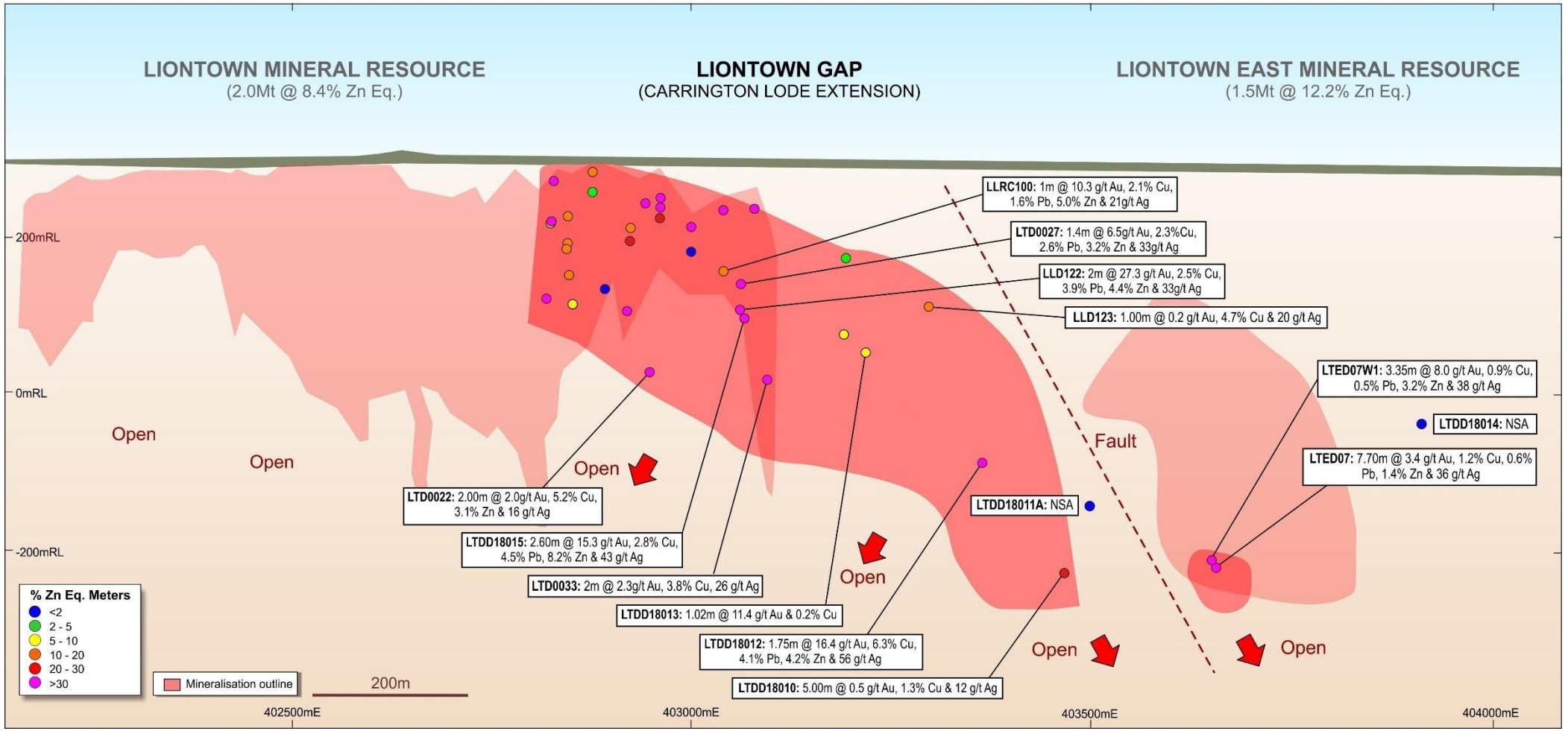


Table 1 Material Carrington Lode intercepts not in current Mineral Resource (Liontown or Liontown East)

Hole ID	From (m)	To (m)	Intersection (m)[1]	Cu (%)	Pb (%)	Zn (%)	Au (g/t)	Ag (g/t)	Zn Eq. (%)
LTDD18010	546.00	551.00	5.00	1.3	0.1	0.8	0.5	12	5.7
LTDD18012	419.05	420.80	1.75	6.3	4.1	4.2	16.4	56	38.2
LTDD18013	295.28	296.30	1.02	0.2	0.0	0.0	11.4	1	6.4
LTDD18015	236.30	238.90	2.60	2.8	4.5	8.2	15.3	43	30.2
LTED07	557.00	564.70	7.70	1.2	0.6	1.4	3.4	36	8.6
LTED07W1	554.15	557.50	3.35	0.9	0.5	3.2	8.0	38	11.5
LLD123	199.00	200.00	1.00	4.7	0.2	1.6	0.2	20	17.7
LTD0022	305.70	307.70	2.00	5.2	0.3	3.1	2.0	16	22.0
(1) Downhole width									

Mineralisation intercepted in the current drilling has been interpreted as an extension of the high-grade, gold-rich polymetallic Carrington Lode.

The Carrington Lode sits in the footwall of the Liontown/Liontown East mineralisation (refer to Figure 2) and is hosted in a dacite pumice breccia unit. In the Liontown Gap Area, the Liontown/Liontown East horizon has been identified, but as of yet, does not host economic mineralisation. Red River also received assay results for holes LTDD18011A and LTDD18014, however there were no material assay results returned for either hole.

Table 2 Material drill hole assay summary (current drilling), Liontown Project

Hole ID	From (m)	To (m)	Intersection (m)[1]	Cu (%)	Pb (%)	Zn (%)	Au (g/t)	Ag (g/t)	Zn Eq. (%)
LTDD18012	419.05	420.80	1.75	6.3	4.1	4.2	16.4	56	38.2
LTDD18013	282.30	282.55	0.25	3.0	0.0	0.2	0.2	7	10.5
and	285.90	286.10	0.20	4.4	0.2	0.4	5.8	21	18.3
and	295.28	296.30	1.02	0.2	0.0	0.0	11.4	1	6.4
and	297.25	298.00	0.75	1.0	0.1	0.3	4.2	6	6.1
LTDD18015	236.30	238.90	2.60	2.8	4.5	8.2	15.3	43	30.2
(1) Downhole width									

Figure 4 LTDD18015 Intersection

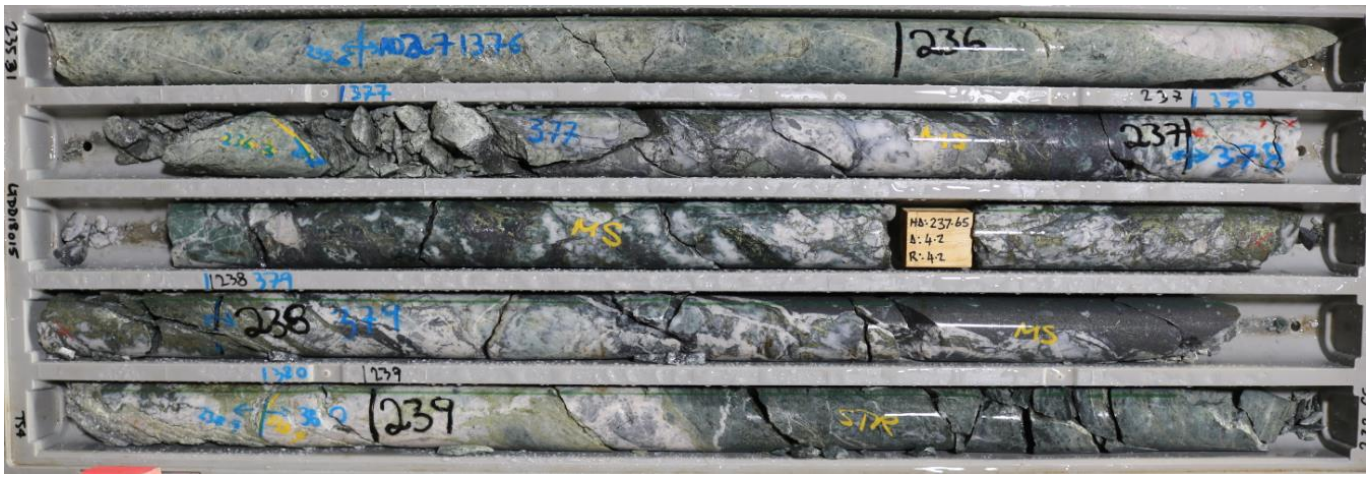


Table 3 LTDD18015 assay summary

Hole ID	From (m)	To (m)	Intersection (m)[1]	Cu (%)	Pb (%)	Zn (%)	Au (g/t)	Ag (g/t)	Zn Eq. (%)
LTDD18015	236.30	237.00	0.70	1.4	5.4	9.8	2.4	32	21.2
LTDD18015	237.00	238.00	1.00	4.0	2.4	6.4	17.1	29	31.0
LTDD18015	238.00	238.90	0.90	2.6	6.2	8.9	23.2	68	36.4
(1) Downhole width									

Geological interpretation of the LTDD18011A intersection indicated that the hole was drilled through a fault zone which has offset the majority of the target base metal mineralisation. LTDD18014 was drilled approximately 180m east of the Liontown East resource to test for potential extensions. Geological logging of the hole indicates that the sediment package hosting the mineralisation thickens to the east, suggesting that mineralisation was choked off by increased sedimentation rates or basin architecture during mineralisation emplacement.

Table 4 Diamond drill hole information summary (current drilling), Liontown Project

Hole ID	Dip	Final Depth (m)	Azi (MGA)	East (MGA)	North (MGA)	RL (MGA)	Lease ID	Hole Status
LTDD18011A	-77	680	23.8	403531	7742660	292	EPM14161	Completed
LTDD18012	-65	570.6	2.8	403363	7742673	289	EPM14161	Completed
LTDD18013	-56	460.5	175.8	403224	7743055	296	EPM14161	Completed
LTDD18014	-63	598.35	359.8	403961	7742820	295	EPM14161	Completed
LTDD18015	-60	484.2	178.8	403070	7743021	301	EPM14161	Completed

The combined Liontown Project Mineral Resource (Liontown and Liontown East) now stands at 3.6Mt @ 10.0% Zinc Equivalent.

Table 5 Liontown Project Mineral Resource

Deposit	Resource Class	Tonnage (kt)	Cu (%)	Pb (%)	Zn (%)	Au (g/t)	Ag (g/t)	Zn Eq. (%)
Liontown	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
	Subtotal	**2,038**	**0.5**	**1.6**	**4.6**	**0.8**	**25**	**8.4**
Liontown East	Measured							
	Indicated							
	Inferred	1,515	0.5	2.5	7.3	0.7	29	12.2
	Subtotal	1,515	0.5	2.5	7.3	0.7	29	12.2
Combined	Measured							
	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**

Tonnages and grades are rounded. Discrepancies in totals may exist due to rounding.
Source: Liontown Deposit JORC 2012 Resource Estimate (ASX Release, 24 June 2015), Maiden Liontown East Mineral Resource (ASX Release, 18 July 2018)
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.

About Red River Resources (ASX: RVR)

RVR is a leading ASX base metal producer, with its key asset being the high quality Thalanga Operation in Northern Queensland. RVR commenced concentrate production at the Thalanga Operation in September 2017 and RVR is focused on maximising returns from the Project by increasing plant throughput and extending mine life through increasing Mineral Resources and Ore Reserves at deposits currently in the mine plan (West 45, Thalanga Far West and Waterloo), by 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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COMPETENT PERSON STATEMENT

Exploration Results

The information in this report that relates to Exploration Results is based on information compiled by Mr Steven Harper 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 Harper consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

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.

Liontown Mineral Resource

The information in this report that relates to the estimation and reporting of the Liontown Mineral Resource 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'.

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.

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 Liontown deposit. The Liontown East deposit is related to and of a similar style of mineralisation to the Liontown Deposit and it is appropriate to apply similar recoveries. 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	Price
Copper	80%	US$3.00/lb
Lead	70%	US$0.90/lb
Zinc	88%	US$1.00/lb
Gold	15%	US$1,200/oz
Silver	65%	US$17.00/oz
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 from Liontown East. 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:

Zn Eq. = (Zn%*1.0) + (Cu%*3.3) + (Pb%*0.9) + (Au ppm*0.5) + (Ag ppm*0.025)

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	Copper	Lead	Zinc	Gold	Silver
Metal Equivalent Factor	3.3	0.9	1.0	0.5	0.025

APPENDIX 1

ASSAY DETAILS

Hole ID	From (m)	To (m)	Int (m)	Cu%	Pb%	Zn%	Au g/t	Ag g/t	Zn Eq. %
LTDD18012	411.00	412.00	1.00	0.0	0.0	0.2	0.1	1	0.3
LTDD18012	412.00	412.40	0.40	0.1	0.0	0.0	0.0	0	0.3
LTDD18012	412.40	412.77	0.37	0.7	0.2	0.4	0.6	20	3.7
LTDD18012	412.77	414.00	1.23	0.2	0.1	0.2	0.3	12	1.6
LTDD18012	414.00	414.35	0.35	0.0	0.0	0.0	0.0	0	0.2
LTDD18012	414.35	415.35	1.00	0.1	0.0	0.1	0.1	1	0.4
LTDD18012	415.35	416.35	1.00	0.0	0.0	0.0	0.0	0	0.1
LTDD18012	416.35	416.90	0.55	0.0	0.0	0.0	0.0	0	0.1
LTDD18012	416.90	418.05	1.15	0.9	0.1	0.2	0.5	8	3.8
LTDD18012	418.05	419.05	1.00	0.3	0.1	0.2	0.1	4	1.3
LTDD18012	419.05	419.60	0.55	2.6	0.9	5.4	6.0	38	18.6
LTDD18012	419.60	420.18	0.58	3.6	11.1	6.2	40.0	94	50.3
LTDD18012	420.18	420.80	0.62	12.1	0.3	1.3	3.7	36	44.2
LTDD18012	420.80	422.00	1.20	0.1	0.1	0.1	0.1	2	0.6
LTDD18012	422.00	423.00	1.00	0.2	0.0	0.0	0.0	1	0.6
LTDD18012	423.00	424.10	1.10	0.2	0.0	0.1	0.0	1	0.7
LTDD18012	424.10	424.50	0.40	2.7	0.1	0.4	0.4	7	9.8
LTDD18012	424.50	425.40	0.90	0.2	0.0	0.1	0.0	1	0.8
LTDD18013	281.50	282.30	0.80	0.3	0.0	0.0	0.7	1	1.2
LTDD18013	282.30	282.55	0.25	3.0	0.0	0.2	0.2	7	10.5
LTDD18013	282.55	283.20	0.65	0.1	0.0	0.1	0.0	1	0.5
LTDD18013	283.20	283.75	0.55	0.7	0.0	0.1	0.0	3	2.5
LTDD18013	283.75	284.75	1.00	0.0	0.0	0.4	0.0	1	0.6
LTDD18013	284.75	285.40	0.65	0.2	0.0	0.4	0.0	1	1.0
LTDD18013	285.40	285.90	0.50	1.1	0.0	0.1	0.1	3	3.9
LTDD18013	285.90	286.10	0.20	4.3	0.2	0.3	5.8	21	18.3
LTDD18013	286.10	287.00	0.90	0.1	0.0	1.9	0.1	1	2.3
LTDD18013	293.00	293.90	0.90	0.0	0.0	0.0	0.0	0	0.1
LTDD18013	293.90	294.50	0.60	0.3	0.0	0.2	0.6	2	1.5
LTDD18013	294.50	295.28	0.78	0.0	0.0	0.0	0.0	0	0.0
LTDD18013	295.28	296.30	1.02	0.2	0.0	0.0	11.4	1	6.4
LTDD18013	296.30	296.80	0.50	0.2	0.0	0.0	0.4	1	1.1
LTDD18013	296.80	297.25	0.45	0.1	0.0	0.0	0.1	0	0.2
LTDD18013	297.25	298.00	0.75	1.0	0.1	0.3	4.2	6	6.1
LTDD18013	298.00	298.50	0.50	0.2	0.0	0.0	1.7	1	1.6
LTDD18015	235.60	236.30	0.70	0.1	0.0	0.0	0.1	1	0.5
LTDD18015	236.30	237.00	0.70	1.4	5.3	9.8	2.4	32	21.2
LTDD18015	237.00	238.00	1.00	4.0	2.4	6.4	17.1	29	31.0
LTDD18015	238.00	238.90	0.90	2.6	6.2	8.9	23.2	68	36.3
LTDD18015	238.90	239.70	0.80	0.0	0.0	0.0	0.0	1	0.1
LTDD18015	239.70	240.50	0.80	0.0	0.0	0.1	0.0	0	0.2
LTDD18015	240.50	241.20	0.70	0.0	0.0	0.0	0.0	0	0.1
LTDD18015	241.20	242.10	0.90	0.1	0.0	0.0	0.0	0	0.3
LTDD18015	242.10	243.00	0.90	1.3	0.0	0.2	0.1	4	4.6
*bdl – below detection limit									

JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

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.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• Diamond drilling (DD) and reverse circulation (RC) techniques were used to obtain samples • No samples were collected from mud rotary drilling. • RC samples were split using a rig-mounted cone splitter on 1m intervals to obtain a sample for assay • Diamond core was placed in core trays for logging and sampling. Half core samples were nominated by the geologist from diamond core based on visual inspection of mineralisation. Intervals ranged from 0.24 to 1.5m based on geological boundaries • Diamond samples were sawn in half using an onsite core saw. All samples were sent to Intertek Genalysis Laboratories Townsville. • Samples were crushed to sub 6mm, split and pulverised to sub 75µm in order to produce a representative sub-sample for analysis. • Analysis of all Red River samples consisted of a four-acid digest and Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES) for the following elements; Ag, As, Ba, Bi, Ca, Cu, Fe, K, Mg, Mn, Na, Pb, S, Sb, Ti, Zn, & Zr was undertaken. A selection of samples was also assayed for Au using a 25g Fire Assay technique • Analysis of Liontown Resources Limited samples was conducted at ALS Townsville. Samples were dried and crushed to sub 6mm, split and pulverised to sub 75µm in order to produce a representative sub-sample for analysis. Analysis for base metals consisted of a low temperature aqua regia digest followed by determination of metals in solution by IPC_AES and a 50g Fire Assay technique for Au. Earlier RC samples were assayed at Assay Laboratories Pty Ltd. Details of other laboratories are not available.
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).*	• Diamond drilling techniques consist of; • PCD drilling through the cover sequence • HQ diamond core drilling of the parent hole • NQ2 diamond core and navigational drilling for the remainder of the drill holes. • Reverse circulation drilling techniques was completed using a 5.5" bit • Reverse circulation bit size and drill configuration of historic holes is not known.
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.*	• Sample recovery is measured and recorded by company trained geotechnicians • Moisture content and sample recovery is recorded for each RC sample • Negligible sample loss has been recorded • Recovery in ore zones from Liontown Resources

Criteria	JORC Code explanation	Commentary
	• *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.*	Limited diamond drilling is typically 100%
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.*	• Holes are logged to a level of detail that would support mineral resource estimation. • Qualitative logging includes lithology, alteration and textures • Quantitative logging includes sulphide and gangue mineral percentages • All drill core and RC chips were photographed • All drill holes have been logged in full • RC drilling contractors adjust their drilling approach to specific conditions to maximise sample recovery.
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.*	• Core was sawn and half core sent for assay • Sample preparation is industry standard, occurring at an independent commercial laboratory which has its own internal Quality Assurance and Quality Control procedures • Samples were crushed to sub 6mm, split and pulverised to sub 75µm in order to produce a representative sub-sample for analysis • Laboratory certified standards were used in each sample batch • The sample sizes are considered to be appropriate to correctly represent the mineralisation style • All RC samples are split using a rig-mounted cone splitter to collect a 1m sample 3-5kg in size. All samples were intended and assumed to be dry, moisture content was recorded for every sample • It is understood that Nickel Mines core was hand split and Essos and Pancontinental core was sawn
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.* • *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.*	• The assay methods employed are considered appropriate for near total digestion • Laboratory certified standards were used in each sample batch • Certified standards returned results within an acceptable range • Field duplicates are taken for all RC samples (1 in 40 samples). No field duplicates are submitted for diamond core.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.*	• Laboratory results have been reviewed by Company geologists and laboratory technicians • No information is currently available regarding any quality control protocols that might have been

Criteria	JORC Code explanation	Commentary
	• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	applied to Nickel Mines, Pancontinental, Great Mines and Essos drilling programmes. • No twinned holes were drilled for this data set
Location 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 Red River collars surveyed with RTKGPS however re-survey of 105 old drill collars was carried out by Liontown Resources Limited. • No records survive of collar survey procedure for pre-2007 • Collar points for holes drilled by Liontown Resources Limited were surveyed using a DGPS • Down hole surveys conducted with digital magnetic multi-shot camera at 20-40m intervals. • Liontown Resources Limited surveyed holes using a single shot camera at 20-40m Intervals • Coordinate system used is MGA94 Zone 55 • Topographic control is based on a detailed 3D Digital Elevation Model
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.*	• The current drill spacing is approximately 50-100m • No sample compositing has been applied
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.*	• Drill holes are orientated perpendicular to the perceived strike of the host lithologies • Drill holes are drilled at a dip based on logistics and dip of anomaly to be tested • The orientation of the drilling is designed to not bias sampling
Sample security	• *The measures taken to ensure sample security.*	• Samples have been overseen by company staff during transport from site to Intertek Genalysis Laboratories, Townsville.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits or reviews have been carried out at this point

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

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 security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The drilling was conducted on Exploration Permit EPM 14161 • EPM 14161 is held by Cromarty Pty Ltd. (a wholly owned subsidiary of Red River Resources) and forms part of Red River's Thalanga Zinc Project • Red River engaged Native Title Claimants, The Gudjalla People to conduct cultural clearances of drill pads and access tracks • The Exploration Permits are in good standing
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Historic Exploration was carried out by Esso Exploration & PanContinental Mining. Work programs included drilling and geophysics
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The exploration model is Volcanic Hosted Massive Sulphide (VHMS) base metal mineralisation • The regional geological setting is the Mt Windsor Volcanic Sub-province, consisting of Cambro-Ordovician marine volcanic and volcano-sedimentary sequences
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, including, easting and northing, elevation or RL, dip and azimuth, down hole length, interception depth and hole length.* • *If the exclusion of this information is justified the Competent Person should clearly explain why this is the case.*	• See Table 4 – Drill Hole Details • See Appendix 1 – Assay Details
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.*	• Interval length weighted assay results are reported • Significant Intercepts relate to assay results > 5% Zn Equivalent. • Zn equivalent formula utilised is: Zn% + (Cu%*3.3) + (Pb%*0.9) + (Au_{ppm}*0.5) + (Ag_{ppm}*0.025)

Criteria	JORC Code explanation	Commentary
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').*	• The mineralisation is interpreted to be dipping at approximately 70 degrees, drill holes have been designed to intercept the mineralisation as close to perpendicular as possible. • Down hole intercepts are reported. True widths are likely to be approximately 80% of the down hole widths.
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 plans and sections.*	• Refer to plans and sections within report
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.*	• The accompanying document is considered to represent a balanced report
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported.*	• All meaningful and material data is reported
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*	• Further Drilling at Liontown East is ongoing