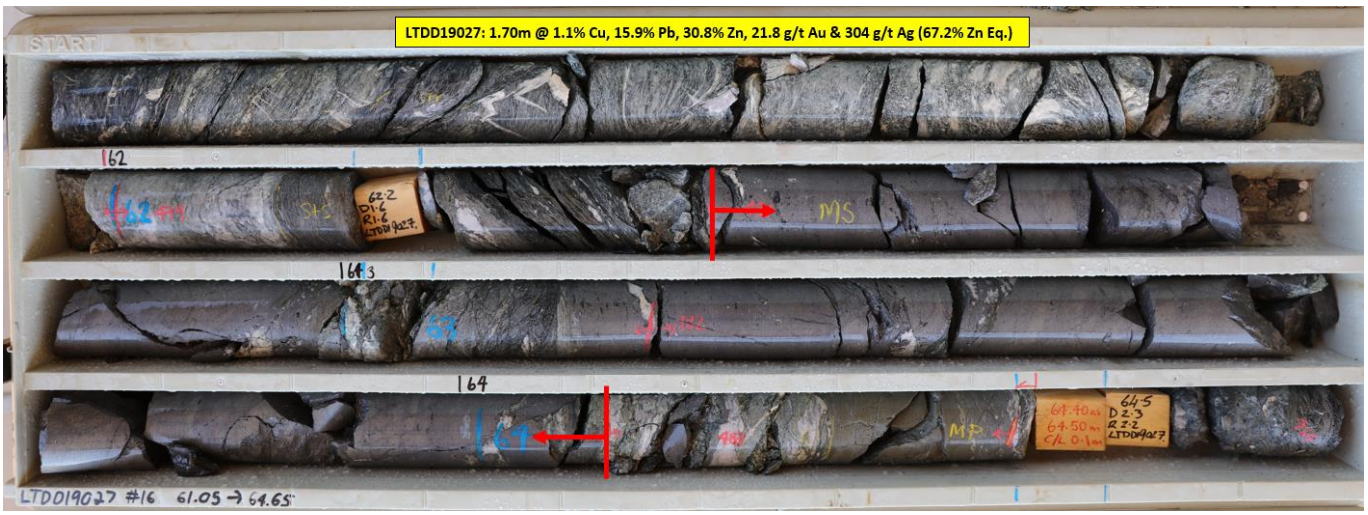
Red River hits 67% zinc equivalent at Liontown

Highlights:

- New exceptional high-grade, gold-rich polymetallic mineralisation drill results from the New Queen Lens (Liontown Project, Thalanga Operations, Northern Queensland).
- Peak assay results of **1.70m @ 1.1% Cu, 15.9% Pb, 30.8% Zn, 21.8 g/t Au and 304 g/t Ag (67.2% Zn Eq.)** from 62.40m down-hole in LTDD19027
- LTDD19027 intersected **30.00m @ 0.4% Cu, 3.8% Pb, 7.1% Zn, 2.4 g/t Au & 38 g/t Ag (13.9% Zn Eq.)** from 61.00m down-hole; including:
  - **5.50m @ 0.4% Cu, 5.8% Pb, 11.9% Zn, 7.2 g/t Au & 119 g/t Ag (25.0% Zn Eq.)** from 61.00m down-hole; including
    - **1.70m @ 1.1% Cu, 15.9% Pb, 30.8% Zn, 21.8 g/t Au & 304 g/t Ag (67.2% Zn Eq.)** from 62.40m down-hole and
  - **5.40m @ 1.0% Cu, 7.2% Pb, 14.4% Zn, 4.7 g/t Au & 52 g/t Ag (27.7% Zn Eq.)** from 73.90m down-hole including
    - **2.55m @ 1.6% Cu, 12.0% Pb, 24.3% Zn, 8.9 g/t Au & 78 g/t Ag (46.8% Zn Eq.)** from 74.30m down-hole and
  - **1.84m @ 1.3% Cu, 12.1% Pb, 20.3% Zn, 1.4 g/t Au & 33 g/t Ag (36.9% Zn Eq.)** from 88.50m down-hole
- New Queen Lens JORC 2012 Mineral Resource Estimate update and preliminary mining studies for New Queen Lens – results expected shortly. Based on the ongoing exploration success at Liontown, Red River is seeking to accelerate production at the high-grade, gold-rich polymetallic Liontown Project ahead of the zinc rich Waterloo deposit.

Figure 1 LTDD19027: 62.40m – 64.10m: 1.70m @ 1.1% Cu, 15.9% Pb, 30.8% Zn, 21.8 g/t Au & 304 g/t Ag (67.2% Zn Eq.)



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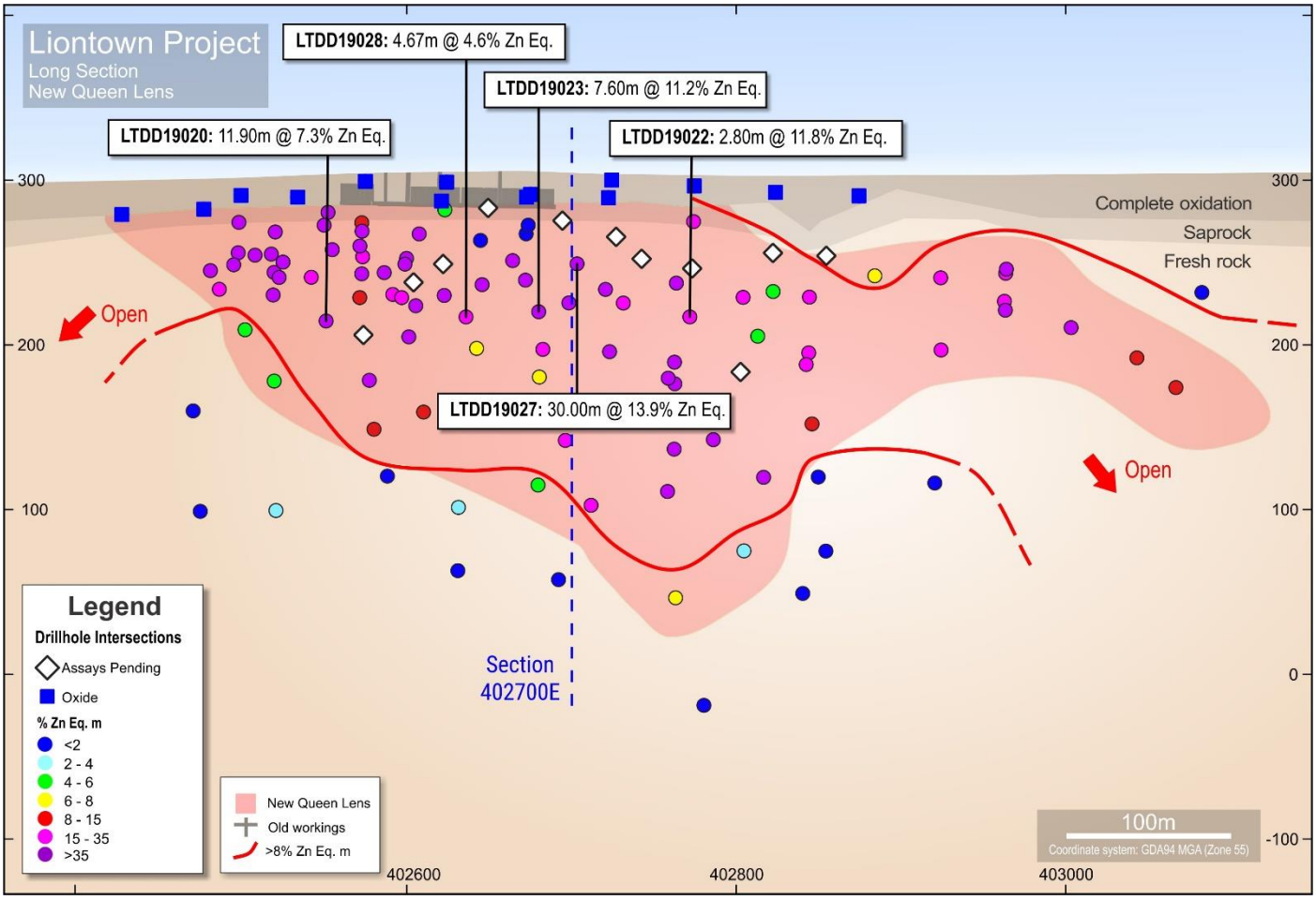
The Liontown Project comprises polymetallic volcanic hosted massive sulphide (VHMS) deposits (New Queen Lens, Main Lens and Liontown East) and the Carrington Lode, a gold-rich copper mineralised vein system (intrusion-related gold-copper vein system – IRGS). Liontown has a total Mineral Resource of 3.6Mt at 10.0% Zinc Equivalent.

Red River commenced drilling at Liontown in June 2019 and has completed 34 drill holes (5,278m drilled) to date, with assay results received for 23 holes. Red River is awaiting assays for the remaining 11 holes, which are expected before the end of January.

Figure 2 New Queen Lens Long Section



New Queen Lens Drilling Results

The New Queens Lens is a large body (approximately 600m by 250m by 5m) of polymetallic (Cu-Pb-Zn) VHMS mineralisation with significant precious metal (gold and silver) credits. Drilling to date has returned wide intercepts of high-grade polymetallic fresh sulphide mineralisation with material precious metals, particularly gold, from within 30m of the surface.

Assay results from the latest five drill holes completed at the New Queen Lens (Liontown Project) highlight the precious metal-rich nature of the VHMS mineralisation (refer to Table 1), with notable intercepts including:

- LTDD19027 intersected 30.00m @ 0.4% Cu, 3.8% Pb, 7.1% Zn, 2.4 g/t Au & 38 g/t Ag (13.9% Zn Eq.) from 61.00m down-hole; including:
  - 5.50m @ 0.4% Cu, 5.8% Pb, 11.9% Zn, 7.2 g/t Au & 119 g/t Ag (25.0% Zn Eq.) from 61.00m down-hole; including
    - 1.70m @ 1.1% Cu, 15.9% Pb, 30.8% Zn, 21.8 g/t Au & 304 g/t Ag (67.2% Zn Eq.) from 62.40m down-hole and
  - 5.40m @ 1.0% Cu, 7.2% Pb, 14.4% Zn, 4.7 g/t Au & 52 g/t Ag (27.7% Zn Eq.) from 73.90m down-hole including
    - 2.55m @ 1.6% Cu, 12.0% Pb, 24.3% Zn, 8.9 g/t Au & 78 g/t Ag (46.8% Zn Eq.) from 74.30m down-hole and
  - 1.84m @ 1.3% Cu, 12.1% Pb, 20.3% Zn, 1.4 g/t Au & 33 g/t Ag (36.9% Zn Eq.) from 88.50m down-hole
- LTDD19023 intersected 7.60m @ 0.2% Cu, 1.8% Pb, 4.0% Zn, 3.8 g/t Au & 120 g/t Ag (11.2% Zn Eq.) from 87.40m down-hole

LTDD19028 also hit the high-grade, copper-rich Carrington Lode, with an intersection of 2.89m @ 7.2% Cu from 140.41m down-hole.

Table 1 Material drill hole assay summary (current drilling), Liontown Project (New Queen Lens Sulphide)

Hole ID	From	To	Down Hole Intersection	True Width Estimate	Cu	Pb	Zn	Au	Ag	Zn Eq.
	(m)	(m)	(m)	(m)	(%)	(%)	(%)	(g/t)	(g/t)	(%)
LTDD19020	73.50	85.40	11.90	10.10	0.1	1.8	3.4	1.5	48	7.3
inc.	74.35	78.00	3.65	2.84	0.2	4.1	7.0	4.2	129	16.7
LTDD19022	124.20	127.00	2.80	1.4	0.2	1.9	7.5	2.2	27	11.8
LTDD19023	87.40	95.00	7.60	6.6	0.2	1.8	4.0	3.8	120	11.2
inc.	88.08	90.00	1.92	1.59	0.4	4.4	9.6	13.6	313	29.5
LTDD19027	61.00	91.00	30.00	20.8	0.4	3.8	7.1	2.4	38	13.9
inc.	61.00	66.50	5.50	4.05	0.4	5.8	11.9	7.2	119	25.0
inc.	62.40	64.10	1.70	1.29	1.1	15.9	30.8	21.8	304	67.2
inc.	73.90	79.30	5.40	4.07	1.0	7.2	14.4	4.7	52	27.7
inc.	74.30	76.85	2.55	1.90	1.6	12.0	24.3	8.9	78	46.8
inc.	88.50	90.34	1.84	1.72	1.3	12.1	20.3	1.4	33	36.9
LTDD19028	101.63	106.30	4.67	4.09	0.1	1.3	3.1	1.0	32	4.6
and*	140.41	143.30	2.89	2.51	7.2	0.0	0.1	0.1	15	na
*Copper rich Carrington Lode intercept										

New Queen Lens Development

Red River is working to update a JORC 2012 Mineral Resource estimate for the New Queen Lens and has commenced preliminary mining studies. The Mineral Resource estimate will be completed when the assays for the outstanding 11 holes are received (expected by end January), and completion of Mineral Resource estimate will allow the outcome of the preliminary mining studies to be finalised.

The ongoing exploration success at Liontown has increased potential to develop the deposit, with Red River seeking to accelerate production at Liontown ahead of developing the zinc-rich Waterloo deposit. Most known New Queen Lens mineralisation falls within an existing Mining Lease (ML10277) held by Red River's wholly owned subsidiary, Cromarty Resources Pty Ltd.

Figure 3 LDD19027 Cross Section 402700E

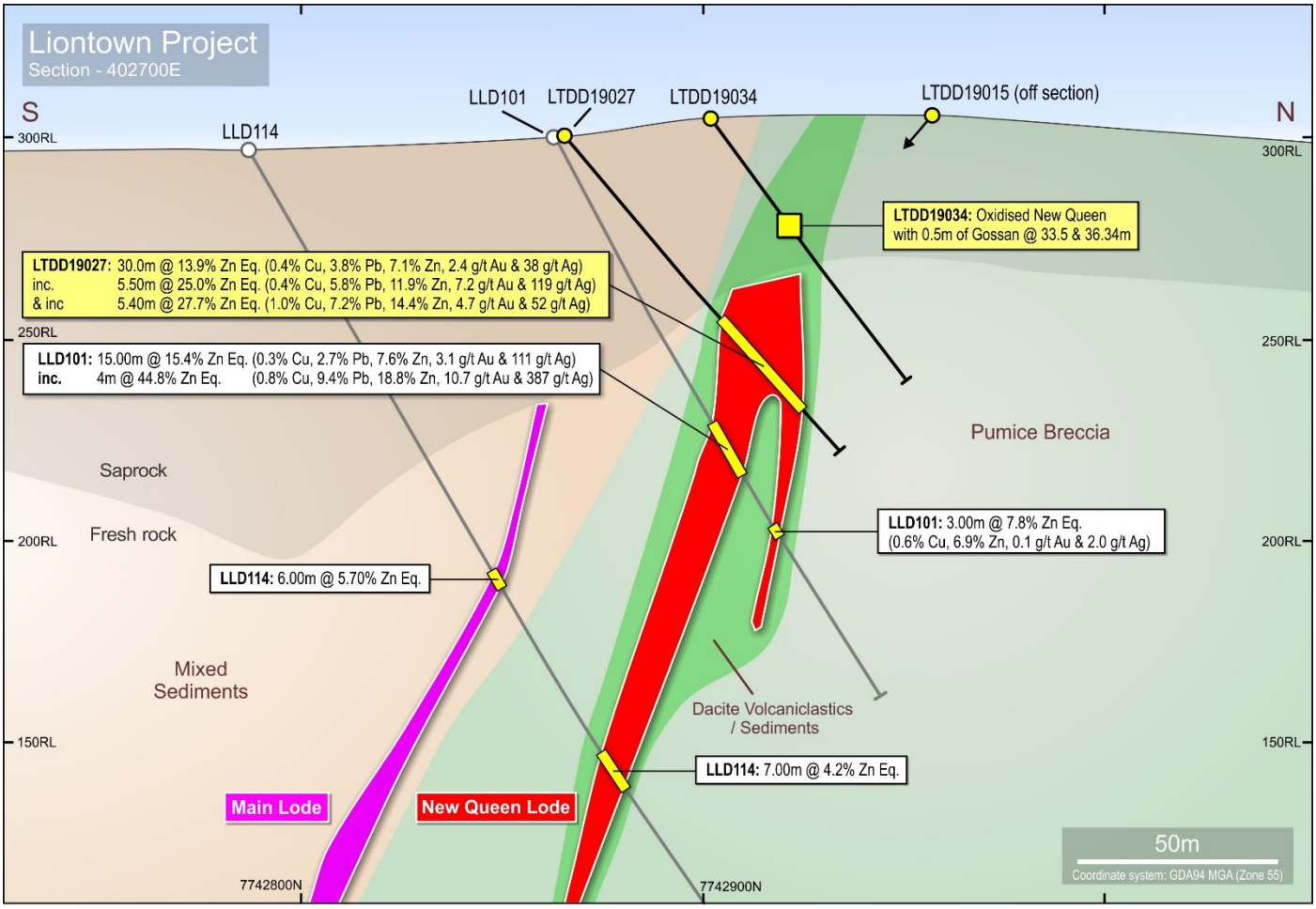


Figure 4 High-grade polymetallic precious metal rich mineralisation in LTDD19027

Figure 5 Liontown Project Location

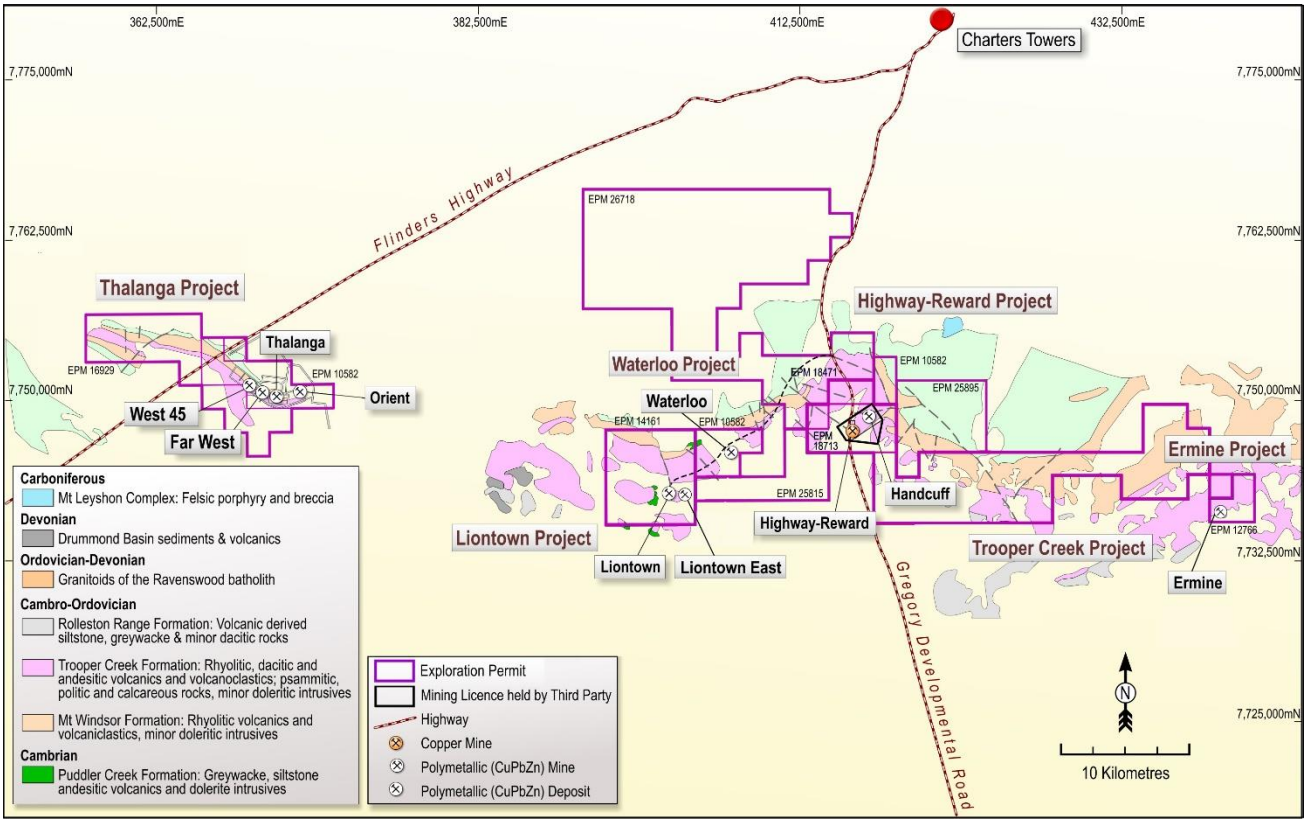


Table 2 Liontown JORC Mineral Resource

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 seeking to build a multi-asset operating business focused on base and precious metals with the objective of delivering prosperity through lean and clever resource development.

RVR's foundation asset is the Thalanga Base Metal Operation in Northern Queensland, which was acquired in 2014 and where RVR commenced copper, lead and zinc concentrate production in September 2017.

RVR has recently acquired the high-grade Hillgrove Gold-Antimony Project in New South Wales, which will enable RVR to build a multi-asset operating business focused on base and precious metals.

On behalf of the Board,

Mel Palancian

Managing Director

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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

Table 3 Drill hole information summary, Liontown Project

Hole ID	Depth (m)	Dip	Azi (MGA)	East (MGA)	North (MGA)	RL (MGA)	Lease ID	Hole Status
LTDD19001	347.78	-49	1	402485	7742710	291	EPM14161	Completed
LTDD19002	257.7	-51	185	402500	7742947	300	ML10277	Completed
LTDD19003	176.5	-61	353	402484	7742763	293	ML10277	Completed
LTDD19004	214.2	-50	8	402459	7742788	295	ML10277	Completed
LTDD19005	224	-47	153	402500	7742947	300	ML10277	Completed
LTDD19007	173.4	-54	356	402586	7742788	294	ML10277	Completed
LTDD19008	279	-61	352	402623	7742789	294	ML10277	Completed
LTDD19010	222.48	-51	172	402642	7742948	306	ML10277	Completed
LTDD19011	158.8	-48	158	402500	7742947	300	ML10277	Completed
LTDD19012	83.9	-51	317	402558	7742906	302	ML10277	Completed
LTDD19013	144.5	-58	172	402642	7742948	306	ML10277	Completed
LTDD19014	116.4	-47	355	402593	7742857	299	ML10277	Completed
LTDD19015	204.8	-48	162	402700	7742957	306	EPM14161	Completed
LTDD19016	112.9	-55	353	402497	7742850	299	ML10277	Completed
LTDD19017	95.2	-58	348	402627	7742894	304	ML10277	Completed
LTDD19018	127.3	-55	33	402500	7742848	299	ML10277	Completed
LTDD19019	108.5	-53	345	402554	7742860	299	ML10277	Completed
LTDD19020	159.5	-66	357	402555	7742859	299	ML10277	Completed
LTDD19021	117.5	-52	345	402667	7742857	301	ML10277	Completed
LTDD19022	148.9	-48	189	402788	7742976	306	EPM14161	Completed
LTDD19023	150.7	-63	345	402667	7742857	301	EPM14161	Completed
LTDD19024	197.4	-57	166	402787	7742977	306	ML10277	Assays pending
LTDD19025	102.5	-50	327	402763	7742873	301	EPM14161	Assays pending
LTDD19026	93.6	-57	2	402766	7742874	301	EPM14161	Assays pending
LTDD19027	104.05	-48	358	402704	7742864	300	ML10277	Completed
LTDD19028	162.5	-52	350	402639	7742830	297	ML10277	Completed
LTDD19029	203.3	-47	349	402585	7742788	294	ML10277	Assays pending
LTDD19030	114.5	-53	5	402847	7742885	304	EPM14161	Assays pending
LTDD19031	120.5	-52	4	402806	7742875	302	EPM14161	Assays pending
LTDD19032	134.3	-50	11	402594	7742855	299	ML10277	Assays pending
LTDD19033	78.5	-50	10	402721	7742883	302	ML10277	Assays pending
LTDD19034	81.5	-53	355	402694	7742901	305	ML10277	Assays pending
LTDD19035	145	-56	335	402651	7742905	305	EPM14161	Assays pending
LTDD19036	116.5	-71	347	402627	7742894	304	ML10277	Assays pending

APPENDIX 2

Liontown Queen Lens Assay Details (LTDD19020)

Hole ID	From (m)	To (m)	Int (m)	Cu%	Pb%	Zn%	Au g/t	Ag g/t	Zn Eq. %	Mineralisation
LTDD19020	73.50	74.35	0.85	0.0	1.1	3.1	0.1	24	4.7	Fresh Sulphide
LTDD19020	74.35	75.30	0.95	0.1	1.9	3.0	1.2	248	11.7	Fresh Sulphide
LTDD19020	75.30	76.00	0.70	0.3	7.2	13.5	12.4	241	33.3	Fresh Sulphide
LTDD19020	76.00	77.00	1.00	0.2	5.3	8.6	1.9	44	16.1	Fresh Sulphide
LTDD19020	77.00	78.00	1.00	0.1	2.9	4.8	3.7	23	10.3	Fresh Sulphide
LTDD19020	78.00	78.40	0.40	0.0	0.7	1.2	1.0	14	2.8	Fresh Sulphide
LTDD19020	78.40	79.00	0.60	0.0	0.1	0.2	0.1	17	0.8	Fresh Sulphide
LTDD19020	79.00	80.00	1.00	0.0	0.0	0.1	0.0	7	0.3	Fresh Sulphide
LTDD19020	80.00	80.50	0.50	0.0	0.0	0.0	0.0	1	0.1	Fresh Sulphide
LTDD19020	80.50	81.05	0.55	0.1	1.5	4.2	1.1	19	6.9	Fresh Sulphide
LTDD19020	81.05	82.00	0.95	0.1	0.9	1.6	0.3	24	3.4	Fresh Sulphide
LTDD19020	82.00	82.85	0.85	0.0	1.1	2.1	0.5	15	3.8	Fresh Sulphide
LTDD19020	82.85	83.50	0.65	0.1	1.8	2.7	0.1	13	5.2	Fresh Sulphide
LTDD19020	83.50	84.50	1.00	0.1	0.6	2.2	0.1	4	3.4	Fresh Sulphide
LTDD19020	84.50	85.40	0.90	0.1	1.0	2.4	0.1	3	3.5	Fresh Sulphide
Downhole width only										

Liontown Queen Lens Assay Details (LTDD19022)

Hole ID	From (m)	To (m)	Int (m)	Cu%	Pb%	Zn%	Au g/t	Ag g/t	Zn Eq. %	Mineralisation
LTDD19022	115.10	116.00	0.90	0.0	0.5	1.0	0.0	1.3	1.5	Fresh Sulphide
LTDD19022	123.20	124.20	1.00	0.1	0.0	2.1	0.3	1.5	2.5	Fresh Sulphide
LTDD19022	124.20	125.00	0.80	0.2	1.1	4.4	1.3	10.3	6.8	Fresh Sulphide
LTDD19022	125.00	126.00	1.00	0.3	1.6	10.5	4.5	52.2	16.4	Fresh Sulphide
LTDD19022	126.00	126.40	0.40	0.6	5.9	12.4	1.3	29.5	21.1	Fresh Sulphide
LTDD19022	126.40	127.00	0.60	0.1	0.9	3.1	0.3	4.4	4.4	Fresh Sulphide
LTDD19022	127.00	128.00	1.00	0.0	0.0	0.1	0.0	0.3	0.1	Fresh Sulphide
LTDD19022	128.00	129.00	1.00	0.0	0.0	0.5	0.1	0.7	0.6	Fresh Sulphide
Downhole width only										

Liontown Queen Lens Assay Details (LTDD19023)

Hole ID	From (m)	To (m)	Int (m)	Cu%	Pb%	Zn%	Au g/t	Ag g/t	Zn Eq. %	Mineralisation
LTDD19023	87.00	87.40	0.4	0.0	0.2	0.5	0.3	15	1.2	Fresh Sulphide
LTDD19023	87.40	88.08	0.7	0.4	1.8	3.8	1.0	106	9.9	Fresh Sulphide
LTDD19023	88.08	88.50	0.4	0.6	9.8	19.4	13.7	324	45.1	Fresh Sulphide
LTDD19023	88.50	90.00	1.5	0.4	2.9	6.9	13.6	310	25.2	Fresh Sulphide
LTDD19023	90.00	90.75	0.8	0.0	0.1	0.2	0.2	17	0.8	Fresh Sulphide
LTDD19023	90.75	91.75	1.0	0.0	0.7	1.7	0.2	24	3.2	Fresh Sulphide
LTDD19023	91.75	92.75	1.0	0.1	0.9	1.6	0.4	11	3.0	Fresh Sulphide
LTDD19023	92.75	93.45	0.7	0.1	0.8	3.8	0.4	21	5.7	Fresh Sulphide
LTDD19023	93.45	94.00	0.5	0.1	0.8	2.0	0.7	58	4.7	Fresh Sulphide
LTDD19023	94.00	95.00	1.0	0.1	1.5	2.5	0.9	144	8.4	Fresh Sulphide
LTDD19023	95.00	96.00	1.0	0.1	0.6	1.0	0.2	46	3.0	Fresh Sulphide
Downhole width only										

Liontown Queen Lens Assay Details (LTDD19027)

Hole ID	From (m)	To (m)	Int (m)	Cu%	Pb%	Zn%	Au g/t	Ag g/t	Zn Eq. %	Mineralisation
LTDD19027	61.00	62.00	1.00	0.1	1.2	4.3	0.5	17	6.4	Fresh Sulphide
LTDD19027	62.00	62.40	0.40	0.2	1.8	4.1	0.4	90	8.8	Fresh Sulphide
LTDD19027	62.40	63.20	0.80	1.2	14.0	26.5	20.5	332	61.4	Fresh Sulphide
LTDD19027	63.20	64.10	0.90	1.0	17.6	34.6	22.9	278	72.3	Fresh Sulphide
LTDD19027	64.10	64.40	0.30	0.3	1.5	3.9	2.2	70	9.0	Fresh Sulphide
LTDD19027	64.40	64.50	0.10	0.2	1.4	3.5	1.9	87	8.6	Fresh Sulphide
LTDD19027	64.50	64.90	0.40	0.1	1.3	3.3	1.7	100	8.2	Fresh Sulphide
LTDD19027	64.90	65.90	1.00	0.0	1.0	2.5	0.1	9	3.8	Fresh Sulphide
LTDD19027	65.90	66.50	0.60	0.0	1.5	3.2	0.3	9	5.1	Fresh Sulphide
LTDD19027	66.50	67.10	0.60	0.1	0.6	1.3	0.1	16	2.4	Fresh Sulphide
LTDD19027	67.10	68.10	1.00	0.0	0.1	0.1	0.9	12	1.0	Fresh Sulphide
LTDD19027	68.10	69.10	1.00	0.0	0.1	0.2	0.6	7	0.9	Fresh Sulphide
LTDD19027	69.10	70.00	0.90	0.1	0.3	0.5	0.1	7	1.4	Fresh Sulphide
LTDD19027	70.00	70.50	0.50	0.0	0.4	0.7	0.0	5	1.3	Fresh Sulphide
LTDD19027	70.70	71.50	0.80	0.0	0.1	0.2	0.0	2	0.4	Fresh Sulphide
LTDD19027	71.50	72.60	1.10	0.0	0.1	0.1	0.0	2	0.2	Fresh Sulphide
LTDD19027	72.60	73.20	0.60	0.0	0.5	1.1	0.7	24	2.4	Fresh Sulphide
LTDD19027	73.20	73.90	0.70	0.1	0.8	1.8	0.1	8	3.1	Fresh Sulphide
LTDD19027	73.90	74.30	0.40	0.3	2.0	4.0	1.4	25	8.1	Fresh Sulphide
LTDD19027	74.30	75.00	0.70	2.2	15.9	26.4	1.0	80	50.6	Fresh Sulphide
LTDD19027	75.00	75.70	0.70	2.5	11.9	28.7	1.3	58	50.0	Fresh Sulphide
LTDD19027	75.70	76.30	0.60	0.5	7.1	13.0	5.8	65	25.7	Fresh Sulphide
LTDD19027	76.30	76.85	0.55	0.9	12.5	28.0	32.2	117	61.1	Fresh Sulphide
LTDD19027	76.85	77.80	0.95	0.1	1.2	1.7	1.7	14	4.3	Fresh Sulphide
LTDD19027	77.80	78.30	0.50	0.4	1.3	3.9	0.3	37	7.4	Fresh Sulphide
LTDD19027	78.30	78.98	0.68	0.1	1.9	4.9	0.2	15	7.3	Fresh Sulphide
LTDD19027	78.98	79.30	0.32	1.8	14.0	23.5	0.5	92	44.7	Fresh Sulphide
LTDD19027	79.30	79.67	0.37	0.1	0.6	1.3	0.0	9	2.6	Fresh Sulphide
LTDD19027	79.67	80.50	0.83	0.0	0.7	1.1	0.1	5	2.0	Fresh Sulphide
LTDD19027	80.50	81.00	0.50	0.0	0.0	0.1	0.0	0	0.1	Fresh Sulphide
LTDD19027	81.00	82.00	1.00	0.0	0.5	0.9	0.2	3	1.7	Fresh Sulphide
LTDD19027	82.00	82.50	0.50	0.0	0.0	0.0	0.0	1	0.0	Fresh Sulphide
LTDD19027	82.50	83.17	0.67	0.0	0.0	0.0	0.0	1	0.0	Fresh Sulphide
LTDD19027	83.17	84.20	1.03	0.0	0.1	0.1	0.0	0	0.1	Fresh Sulphide
LTDD19027	84.20	84.77	0.57	0.0	0.8	1.2	0.0	6	2.1	Fresh Sulphide
LTDD19027	84.77	85.10	0.33	1.1	22.6	26.1	0.8	105	53.1	Fresh Sulphide
LTDD19027	85.10	86.00	0.90	0.1	1.6	2.6	0.0	14	4.9	Fresh Sulphide
LTDD19027	86.00	87.00	1.00	0.1	2.0	3.5	0.1	9	6.0	Fresh Sulphide
LTDD19027	87.00	88.00	1.00	0.2	4.4	3.8	0.1	13	8.6	Fresh Sulphide
LTDD19027	88.00	88.50	0.50	0.1	1.6	3.2	1.2	6	5.7	Fresh Sulphide
LTDD19027	88.50	89.00	0.50	1.4	15.3	21.9	1.2	39	42.0	Fresh Sulphide
LTDD19027	89.00	89.65	0.65	1.8	15.6	28.9	1.4	42	50.7	Fresh Sulphide
LTDD19027	89.65	90.34	0.69	0.6	6.6	11.0	1.7	19	20.1	Fresh Sulphide
LTDD19027	90.34	91.00	0.66	0.1	2.1	4.1	1.3	10	7.3	Fresh Sulphide
LTDD19027	91.00	92.00	1.00	0.0	0.3	0.7	0.2	4	1.2	Fresh Sulphide
Downhole width only										

Liontown Queen Lens Assay Details (LTDD19028)

Hole ID	From (m)	To (m)	Int (m)	Cu%	Pb%	Zn%	Au g/t	Ag g/t	Zn Eq. %	Mineralisation
LTDD19028	100.90	101.63	0.73	0.0	0.4	0.9	0.1	3	1.2	Fresh Sulphide
LTDD19028	101.63	102.20	0.57	0.1	1.7	3.2	0.2	9	5.1	Fresh Sulphide
LTDD19028	102.20	103.13	0.93	0.1	0.9	1.7	0.8	86	2.6	Fresh Sulphide
LTDD19028	103.13	104.00	0.87	0.1	1.7	3.6	2.9	58	5.5	Fresh Sulphide
LTDD19028	104.00	104.80	0.80	0.1	1.0	1.5	0.1	5	2.6	Fresh Sulphide
LTDD19028	104.80	105.35	0.55	0.2	2.4	3.0	0.1	11	5.8	Fresh Sulphide
LTDD19028	105.35	105.90	0.55	0.2	0.5	5.4	1.1	2	6.4	Fresh Sulphide
LTDD19028	105.90	106.30	0.40	0.1	0.6	5.7	1.7	2	6.7	Fresh Sulphide
LTDD19028	106.30	107.00	0.70	0.1	0.1	1.5	0.2	2	2.0	Fresh Sulphide
Downhole width only										

Liontown Carrington Lode Assay Details (LTDD19028)

Hole ID	From (m)	To (m)	Int (m)	Cu%	Pb%	Zn%	Au g/t	Ag g/t	Zn Eq. %	Mineralisation
LTDD19028	140.41	140.90	0.49	11.7	0.1	0.1	0.2	25	na	Fresh Sulphide
LTDD19028	140.90	141.90	1.00	0.8	0.0	0.0	0.0	2	na	Fresh Sulphide
LTDD19028	141.90	142.61	0.71	0.1	0.0	0.0	0.0	0	na	Fresh Sulphide
LTDD19028	142.61	143.30	0.69	20.6	0.1	0.2	0.3	43	na	Fresh Sulphide
Downhole width only										

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 retrospectivity 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) techniques were used to obtain samples. No samples were collected from mud rotary drilling. 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 0.15 to 1.5m based on geological boundaries Diamond samples were sawn in half using an onsite core saw. All Red River 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.
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).	Red River diamond drilling techniques consist of; HQ3 diamond core drilling until competent rock NQ2 diamond core and navigational drilling for the remainder of the drill holes.
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.	Sample recovery is measured and recorded by company trained geology technicians. Minimal core loss mostly at the top of the drill hole has been recorded at Liontown. Recovery in ore zones from Liontown Resources 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.	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.

Criteria	JORC Code explanation	Commentary
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged.	All drill core was photographed. All drill holes have been 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.	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.
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. 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. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data.	Laboratory results have been reviewed by Company geologists and laboratory technicians. 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.	A portion of Red River collars surveyed with RTKGPS and others by hand-held GPS as noted in Table 2. Re-survey of 105 historic drill collars was carried out by Liontown Resources Limited. Down hole surveys conducted with digital magnetic multi-shot camera at 20-40m intervals by Red River Resources. A portion of drill holes were surveyed by multi-shot survey . Coordinate system used is MGA94 Zone 55

Criteria	JORC Code explanation	Commentary
		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 40-150m. 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 where possible. The orientation of the multiple lenses varies resulting in some holes resulting in less than perpendicular intersections. 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. Orientation of the HQ3 core was undertaken to define structural orientation.
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.

(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 Mining Lease 10277 and Exploration Permit EPM 14161. ML 10277 and EPM 14161 are 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, Liontown Resources, Nickle Mines, Great Mines & Pan Continental 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 2 – 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). Where core loss occurs the average length-weighted grade of the two adjacent samples were attributed to the interval for the purpose of calculating intersection. The maximum interval of missing core incorporated in the reported intersection is 1 metre.
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.	The mineralisation is interpreted to be dipping at approximately 65 to 90 degrees, drill holes have been designed to intercept the mineralisation as close to perpendicular as possible.

Criteria	JORC Code explanation	Commentary
	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').	Down hole intercepts are reported. True widths are likely to be approximately 30 to 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 is ongoing.