

17 January 2020

## **Quarterly Activities and Cash Flow Report for the period ending 31 December 2019**

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### **Quarter Highlights**

- Drilling continues to deliver outstanding thick intercepts of high grade polymetallic and precious metal rich mineralisation in the shallow NQ lens at Liontown
- Hillgrove Gold Project continues to advance towards production restart with metallurgical testwork commenced on samples from the Bakers Creek Waste Dump. Bulk sampling of the Waste Dump (423kg of samples) returned a weighted average grade of 3.0 g/t Au
- Mined ore production from Far West continues to ramp up, albeit after production issues in the quarter

### **Thalanga Operations**

- Zinc concentrate production of 3,781 DMT
- Lead concentrate production of 876 DMT
- Copper concentrate production of 1,560 DMT

### **Development Activities**

- Thalanga Far West underground mine development continues – 1,112m of lateral development and 14m of vertical development completed during Q2 FY2020. Total development to date of 4,604m including 1,651m of decline development as at quarter end
- The Far West decline is currently at 198m vertical depth. It has passed the 780 Level access and continues downwards to the 760 Level Access
- \$2.3 million invested in capital development, primarily at Far West
- \$0.9 million invested in exploration activities at Thalanga Operations

### **Corporate**

- \$12.2 million revenue generated from concentrate sales
- C1 cost of US\$ 1.13 per pound of payable zinc metal
- C2 cost of US\$ 1.51 per pound of payable zinc metal
- C3 cost of US\$ 1.74 per pound of payable zinc metal
- Thalanga Operations EBITDA of \$(2.4) million
- Cash balance of \$11.9 million plus financial assets of \$12.9 million (cash backed security bond deposits) as at 30 December 2019.
- Red River's working capital facility of US\$10 million remains undrawn and the Company remains debt free.

## **1. SAFETY AND ENVIRONMENTAL PERFORMANCE**

### **1.1. Thalanga Operations Safety and Environmental Performance**

The site headcount during the period was 163 people. There were 68 full-time Red River Resources employees and an additional 95 contractors working in exploration and mining, with a total 103,481 hours worked. The Total Recordable Injury Frequency Rate (TRIFR) is zero for year to date. There were zero medical treated injuries during the quarter, and zero Lost Time Injuries (LTIs).

### **1.2. Hillgrove Gold Mine Safety and Environmental Performance**

The Hillgrove Gold Mines site headcount during the period was five people with 1,732 hours worked. The Total Recordable Injury Frequency Rate (TRIFR) is zero for the year to date. There were zero medical treated injuries during the quarter, and zero Lost Time Injuries (LTIs) year to date.

## **2. THALANGA OPERATION, QUEENSLAND**

The Thalanga Operation is located approximately 65km southwest of Charters Towers in Northern Queensland and 200km from Townsville. Thalanga consists of a 650ktpa capacity processing plant which produces separate copper, lead and zinc concentrates with material precious metal (gold and silver) credits.

The Thalanga Operation is located in the highly prospective Cambro-Ordovician Mt Windsor Volcanic Belt which contains a number of known polymetallic (copper-lead-zinc +/- gold-silver) volcanic hosted massive sulphide (VHMS) deposits and gold deposits.

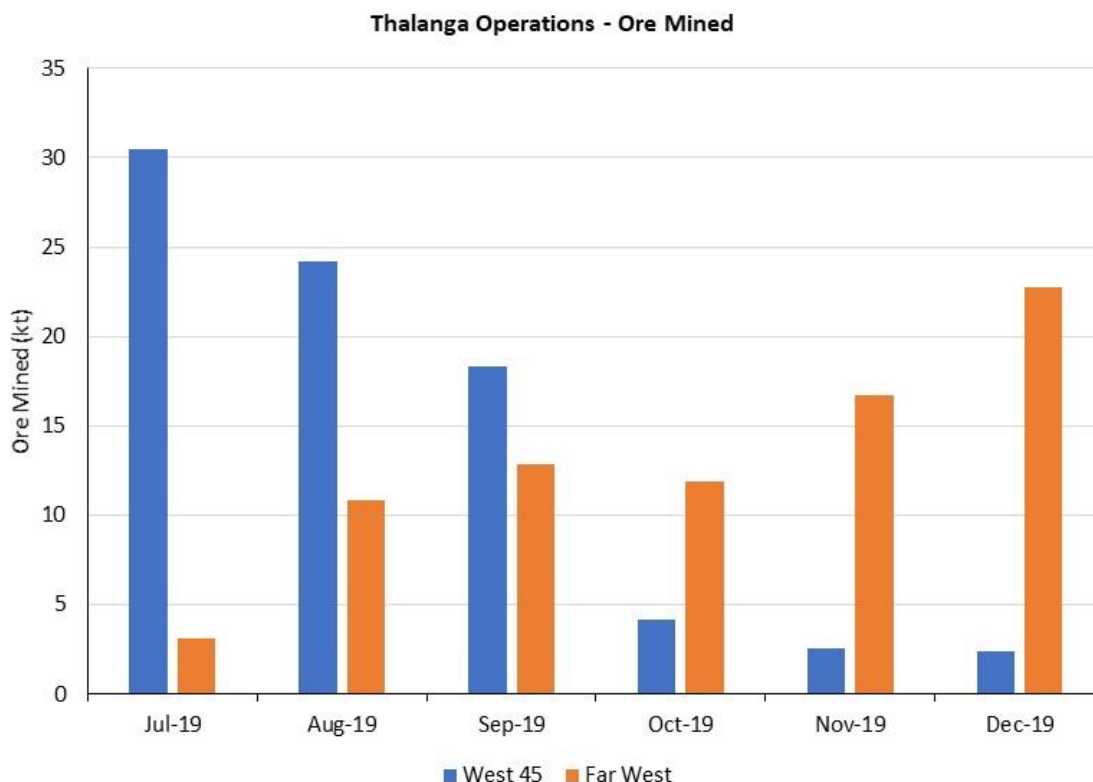
Red River acquired the Thalanga Operation in 2014 and commenced production from the West 45 deposit in 2017, with ore for the Thalanga Operation currently being sourced from the West 45 and Far West underground mines, with plans to develop the Liontown and Waterloo deposits to extend the future Thalanga operational life.

## 2.1. Operations Update

Thalanga Operations quarterly mine ore production was 60kt @ 1.0% Cu, 1.2% Pb, 3.5% Zn, 0.2 g/t Au & 38 g/t Ag (9.0% Zn Eq.). Thalanga Operations processed 66kt of ore grading 0.8% Cu, 1.3% Pb, 3.5% Zn, 0.2g/t Au & 40 g/t Ag (8.4% Zn Eq.)

The main ore source for the quarter came from the Far West mine. Mining activities at West 45 continued to reduce, and mining is now expected to cease during Q3 FY20 when West 45 will be placed into care and maintenance. Production during the quarter was negatively impacted by delays in the ramp up of mining operations at Far West. Red River is working with PYBAR (Far West mining contractors) to bring ore production levels at Far West to the design 30,000 – 40,000 tonnes per month production levels

Figure 1 Thalanga Operations – Ore Mined (by source)



Zinc concentrate production decreased from Q1 FY20, with 3,781 DMT zinc concentrate produced. Lead concentrate production fell from Q1 FY20, with 876 DMT lead concentrate produced, and copper concentrate production rose 14% from Q1 FY20 with 1,560 DMT copper concentrate produced.

Zinc recovery to zinc concentrate averaged 85.8% for the period and a high-quality zinc concentrate grading 52.5% zinc was produced. Lead recovery to lead concentrate reduced to 58.8% due to issues treating transitional ore from the upper levels of West 45, but Thalanga Operations continued to produce a high-quality lead concentrate, with an average concentrate grade of 56.5% Pb, 4.9 g/t Au & 1,413 g/t Ag produced during the period.

Copper recovery to copper concentrate continued to maintain the high levels of the previous quarter, with an average recovery of 70.8% during the quarter to a high-quality copper concentrate grading 24.8% Cu, 2.2 g/t Au and 423 g/t Ag.

## 2.2. Concentrate Sales & Marketing

Red River sold 4,149 DMT zinc concentrate, 945 DMT lead concentrate and 1,455 DMT copper concentrate during the quarter. All concentrates were delivered under long term offtake agreements to Trafigura (zinc and lead concentrate) and Glencore (copper concentrate).

The Company continued to execute a short-term hedging program over the quotation period (QP) for sales of zinc and lead metal already produced. Typically, between 80 and 90% of the payable zinc and lead metal for each shipment of zinc and lead concentrates was hedged for the period from the issue of the first provisional sales invoice to the final settlement of the sale, which may occur between one and three months later. The QP hedges currently in place on the quarter's zinc concentrate sales are US\$1.05 per pound of payable zinc metal.

Table 1 Thalanga Operations Summary for the December 2019 Quarter (Q2 FY20)

	Units	Q2 FY19	Q3 FY19	Q4 FY19	Q1 FY20	Q2 FY20	FY20 YTD
<b>Total Tonnes Mined</b>	kt	96	106	90	100	60	160
Copper grade	%	0.4	0.6	0.5	0.4	1.0	0.7
Lead grade	%	2.4	3.1	2.3	1.9	1.2	1.6
Zinc grade	%	5.4	5.8	5.0	3.9	3.5	3.7
Gold grade	g/t	0.2	0.3	0.2	0.3	0.2	0.3
Silver grade	g/t	39	53	43	36	38	37
Zinc equivalent grade	%	9.9	11.9	9.8	8.1	9.0	8.4
<b>Ore Processed</b>	kt	95	109	104	99	66	166
Copper grade	%	0.4	0.5	0.6	0.5	0.8	0.6
Lead grade	%	2.6	2.9	2.6	1.8	1.3	1.6
Zinc grade	%	5.2	5.5	5.4	3.6	3.5	3.6
Gold grade	g/t	0.2	0.3	0.3	0.2	0.2	0.2
Silver grade	g/t	46	55	56	38	40	39
Zinc equivalent grade	%	10.1	11.4	11.2	7.9	8.4	8.1
<b>Zinc Concentrate Produced</b>	DMT	7,695	8,952	9,057	6,199	3,781	9,980
Zinc grade	%	56.8	59.3	55.4	52.4	52.5	52.4
Zinc recovery	%	87.8	88.6	88.7	90.3	85.8	88.5
<b>Lead Concentrate Produced</b>	DMT	3,007	3,763	3,369	2,016	876	2,892
Lead grade	%	65.7	69.3	64.5	67.1	56.5	63.9
Copper grade	%	2.9	1.6	1.6	1.8	6.1	3.1
Gold grade	g/t	2.6	2.6	2.7	3.9	4.9	4.2
Silver grade	g/t	786	831	822	892	1,413	1,050
Lead recovery	%	80.6	81.9	79.7	76.0	58.8	70.5
Copper recovery	%	22.6	10.3	9.0	7.9	9.8	8.9
<b>Copper Concentrate Produced</b>	DMT	725	1,694	1,806	1,372	1,560	2,932
Copper grade	%	28.6	25.4	23.8	24.5	24.8	24.7
Gold grade	g/t	7.6	6.7	6.8	4.5	2.2	3.3
Silver grade	g/t	1,311	956	1,116	818	423	608
Copper recovery	%	54.1	73.5	71.1	71.2	70.8	71.0
<b>Zinc Concentrate Sold</b>	DMT	7,121	9,052	9,902	6,191	4,149	10,340
<b>Lead Concentrate Sold</b>	DMT	2,828	3,758	3,422	2,381	945	3,326
<b>Copper Concentrate Sold</b>	DMT	347	2,008	1,927	1,425	1,455	2,880

Table may include rounding errors

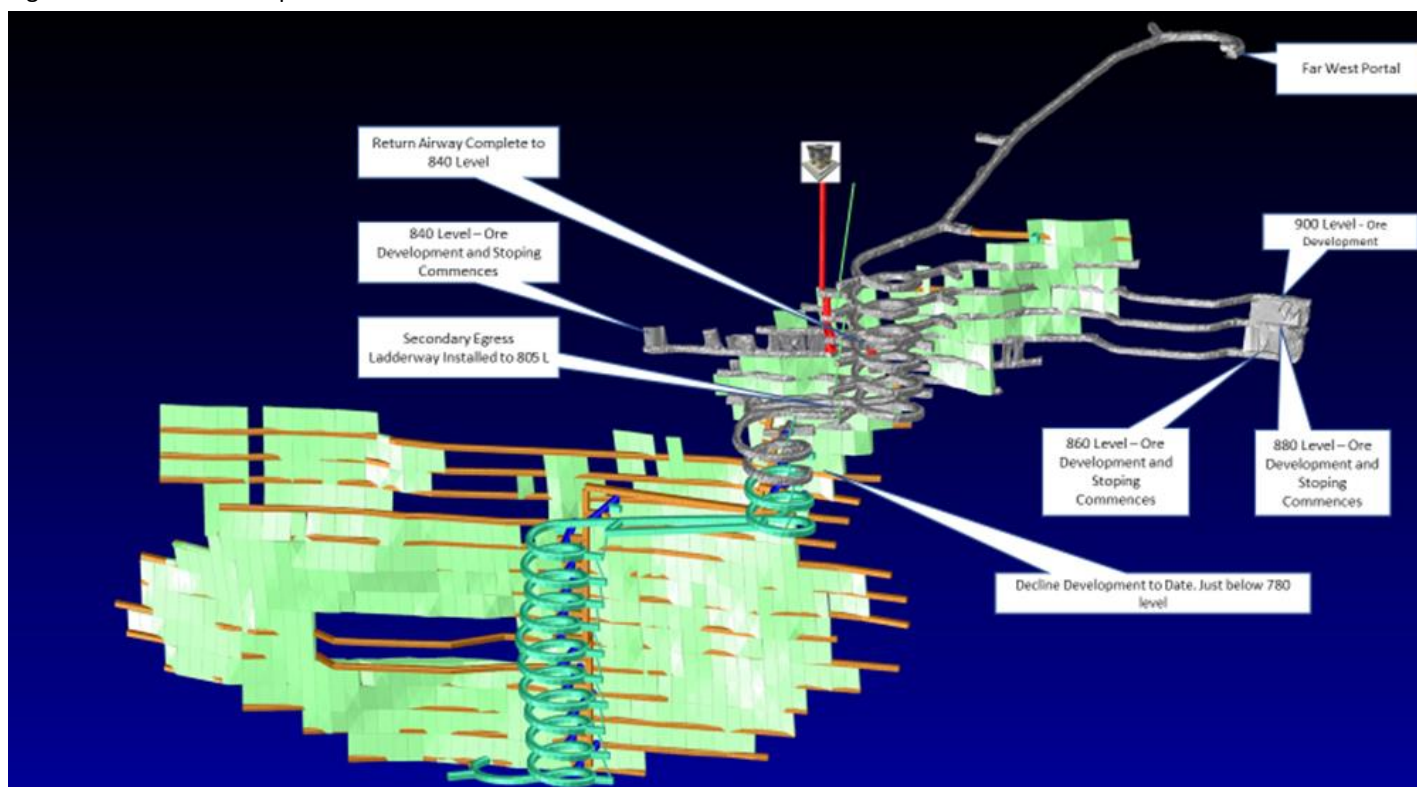
### 2.3. Far West

Red River continued to invest in the development of the Far West mine during the quarter, with 1,112m of lateral development:

- Far West decline development of 288m and vertical development of 14m (Escape Ladderways to 805 Level)
- Total ore development of 510m
- Other lateral waste development of 314m

Total Far West development to date was 4,604m including 1,651m of decline development at quarter end. The Far West decline is currently at 198m vertical depth. It has passed the 780 Level access and continues downwards to the 760 Level Access.

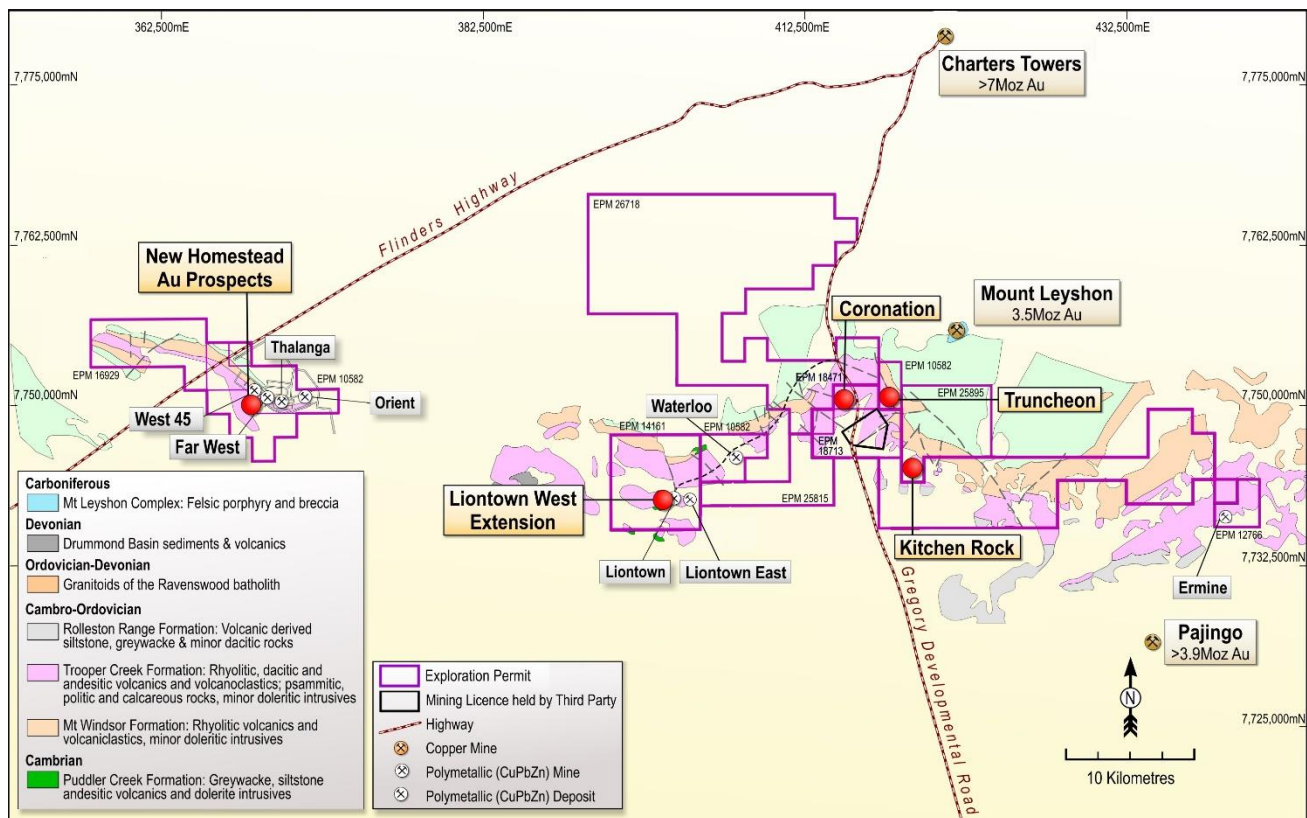
Figure 2 Far West Development



## 2.4. Project Development Activities

Red River engaged a geological consultant (Nick Tate, Geomap) in October 2019 to undertake a review of the gold potential of Red River's tenements in the Charters Towers region. Mr Tate spent 16 days on site at Thalanga to review known gold targets, consisting of mapping, sampling and a review of historic exploration activities and his review prioritised the following targets (New Homestead, Liontown West Extension, Coronation, Truncheon and Kitchen Rock).

Figure 3 RVR Gold Exploration Targets



The Charters Towers region (North Queensland) is host to a number of world-class deposits, representing a diverse suite of mineralisation styles and ages, plus small to medium size gold deposits in the region. World class deposits include:

- Charters Towers - Devonian vein-hosted Au mineralisation (total production >7 Moz Au)
- Ravenswood - Carboniferous to Permian vein-hosted Au mineralisation (production to date of ~4.6 Moz Au, remaining resources of ~6.0 Moz Au)
- Mount Leyshon - Carboniferous to Permian Au (Ag) mineralisation associated with Late Palaeozoic intrusions and breccias (total production ~3.5 Moz Au)
- Pajingo - Late Palaeozoic low sulphidation epithermal mineralisation (production to date of >3.9 Moz Au).

There are also known gold-rich polymetallic massive sulphide volcanic-hosted massive sulphide (VHMS) deposits hosted within the Seventy Mile Range Group (Thalanga, Liontown, Waterloo and Highway-Reward).



## 2.5. Exploration Activities

Red River holds approximately 580km<sup>2</sup> of exploration tenements in the highly prospective Mt Windsor Volcanic Belt in the Charters Towers Region on Northern Queensland. The tenement package is highly prospective for both volcanic hosted massive sulphide (VHMS) deposits and gold deposits.

Red River commenced drilling at the Liontown Project in June 2019, and 34 drill holes were completed (5,278m drilled) by quarter end. The drill rig was then stood down as part of the site preparation activities for the upcoming wet season.

Material drilling results from the Liontown Drilling Program reported during the quarter are summarised in Table 2. For further information, refer to the ASX releases “Liontown drilling highlights potential to expand Thalanga” (13 November 2019) and “Red River hits high-grade gold and silver at Thalanga” (20 December 2019).

Table 2 Liontown Drilling Program – Material Intersections

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)	(%)
LTDD19008	152.10	154.65	2.55	0.9	0.2	1.2	2.2	1.0	22	4.9
LTDD19011	32.00	103.20	71.20	17.3	0.2	1.8	4.0	1.5	14	6.9
<i>inc.</i>	39.00	55.00	16.00	12.0	0.3	3.2	7.0	3.5	12	11.3
<i>inc.</i>	68.15	80.65	12.50	8.0	0.3	3.5	5.3	1.0	28	10.7
LTDD19012	35.80	44.20	8.40	7.6	0.3	1.9	4.6	0.5	13	8.0
LTDD19013	53.75	89.50	35.75	11.8	0.3	3.5	7.4	2.2	91	14.9
<i>inc.</i>	78.90	84.25	5.35	2.5	1.3	12.6	25.0	10.1	461	57.1
LTDD19014	65.20	86.00	20.80	20.80	0.1	0.8	2.4	0.4	32	4.4
<i>inc.</i>	65.20	69.15	3.95	3.95	0.0	0.8	3.0	1.2	127	7.6
LTDD19015	69.80	98.30	28.50	13.37	0.2	2.2	4.2	1.7	171	11.8
<i>inc.</i>	84.15	88.00	3.85	1.90	0.6	7.6	15.8	4.5	218	32.4
<i>inc.</i>	94.00	95.00	1.00	0.46	0.5	3.3	4.2	5.9	2,750	80.5
LTDD19016	67.00	69.80	2.80	2.23	0.2	2.6	4.9	2.2	85	11.0
LTDD19017	38.05	47.00	8.95	7.98	0.3	2.7	4.7	0.7	106	11.1
<i>inc.</i>	41.00	44.28	3.28	2.85	0.6	3.7	8.2	1.2	194	18.9
LTDD19018	77.45	87.35	9.90	8.06	0.1	1.5	2.8	1.7	15	5.8
<i>inc.</i>	77.45	82.50	5.05	4.83	0.2	2.4	4.0	3.3	25	9.0
LTDD19019	67.00	71.25	4.25	3.69	0.1	1.5	4.8	0.7	34	7.6
LTDD19021	78.35	81.90	3.55	3.38	0.2	2.6	5.4	5.3	95	13.4
<i>inc.</i>	78.80	79.27	0.47	0.40	1.3	15.5	30.3	39.3	352	77.0

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 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.

### 3. HILLGROVE GOLD MINE, NEW SOUTH WALES

The Hillgrove Gold Mine is located approximately 30km from Armidale in New South Wales. Historic mining activity commenced at the site in 1857 and ceased in 1921 and recommenced in 1969.

Since 2004, over \$180 million has been invested in underground development, surface infrastructure and processing plant by Straits Resources Limited (2004 to 2009) and most recently by the current owner, Bracken Resources Pty Ltd (“Bracken”) which acquired Hillgrove from Straits in 2013 for \$33.2 million (plus the replacement of \$3.9 million in environmental bonds provided by Straits). Bracken subsequently invested over \$40 million in upgrading and recommissioning Hillgrove with production of gold concentrate and antimony-gold concentrate commencing in 2014.

Hillgrove contains significant infrastructure with a historical cost of \$180 million (including existing processing plant, surface infrastructure, underground development, resource definition drilling and underground mining fleet). Historical production at Hillgrove exceeds 730,000 oz of gold (in concentrate and bullion) and 50,000 tonnes of antimony (in concentrate and metal) plus by-product tungsten.

The Hillgrove Gold Mine was placed on care & maintenance in 2016 due to low prevailing antimony prices and is currently being maintained by a staff of 5 employees.

Figure 4 Hillgrove Gold Mine showing processing infrastructure and layout



For a more comprehensive overview of the Hillgrove Gold Mine please refer to the site visit presentation dated 19 September 2019.



### 3.1. Hillgrove Gold Mine Restart Strategy

Red River has commenced work on the Hillgrove Gold Mine Restart Strategy during the period, with the following undertaken.

- Bulk sampling of the Bakers Creek waste dump (423kg of samples) returned a weighted average grade of 3.0 g/t Au.
- Metallurgical consultants were engaged Consep Pty Ltd – (gravity test work) and Core Resources (flotation and cyanide leach test work) to carry out metallurgical testwork on representative samples from the Bakers Creek Waste dump to confirm the optimal flow sheet to maximise gold recovery. Results from this program are expected shortly.

### 3.2. Exploration Activities

Red River holds approximately 425km<sup>2</sup> of tenements surrounding the Hillgrove Gold Mine, containing the entirety of the Hillgrove Mineral Field (which has a known extent of approximately 9km x 6km) and contains over 200 known gold-antimony +/- tungsten occurrences

Of these known occurrences, 18 have had significant historical mining activity, and 6 contain either JORC 2012 and/or JORC 2004 compliant Mineral Resources. Hillgrove has a current JORC 2012 compliant Mineral Resource of 2.8Mt @ 5.1 g/t Au and 1.7% Sb (459Koz Au & 48Kt Sb) (refer to Table 3) plus a material JORC 2004 compliant Mineral Resource.

Mineralisation at Hillgrove is hosted by a series of fracture-controlled vein systems and breccias, with a known vertical extent in excess of 1,200m (open at depth) and strike extent in excess of 4km. The upper part of the vein systems are dominated by antimony mineralisation (stibnite) as massive stibnite veins within a broad halo of refractory gold in arsenopyrite transitioning to gold dominated mineralisation (visible free gold in arsenopyrite rich halo surrounding quartz breccia and stibnite veins with visible free gold) at depth.

Table 3 Hillgrove Mineral Resource at a 5g/t Gold Equivalent cut-off

Classification	Tonnes (kt)	Gold (g/t)	Antimony (%)	Gold Equivalent (Au Eq.) (g/t)	Contained Gold (Koz Au)	Contained Antimony (Kt Sb)
Measured	690	5.8	2.6	9.8	129	18
Indicated	1,100	4.9	1.5	7.0	173	17
Inferred	1,000	5.0	1.1	6.5	161	11
<b>Total</b>	<b>2,800</b>	<b>5.1</b>	<b>1.7</b>	<b>7.5</b>	<b>459</b>	<b>48</b>

Source: AMC Consultants Pty. Ltd. Hillgrove Mineral Resource Estimate (August 2017)

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

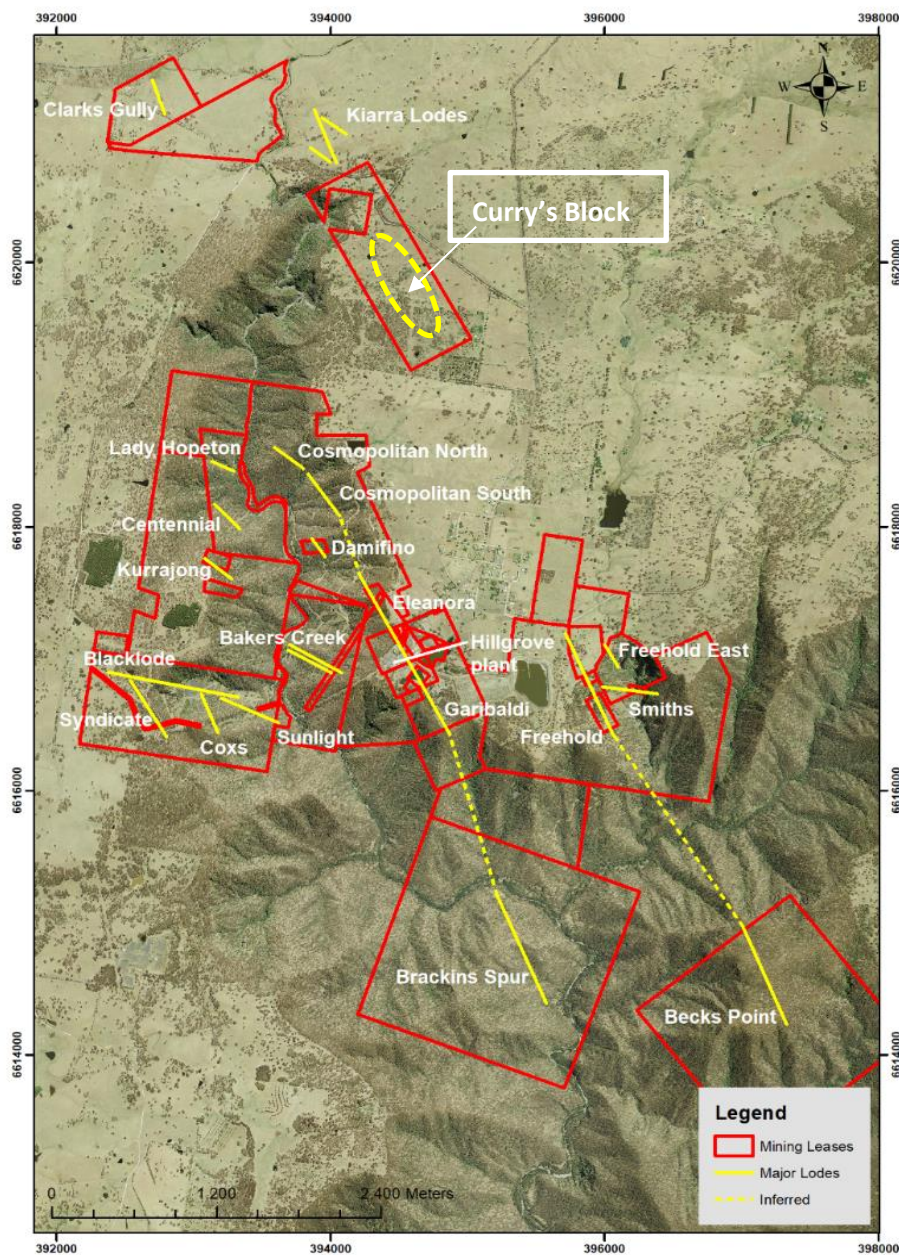
Gold equivalent (Au Eq.) has been calculated using the metal selling prices, recoveries and other assumptions contained in the AMC Estimate and included this announcement.

With the acquisition of the Hillgrove Gold Project, Red River has gained exclusive access to an extensive and unique historical database (drilling data, underground mapping, sampling and development), representing a huge opportunity to target historical mines that have had no modern exploration activity.

Red River has commenced a detailed review of the historical database, and this has highlighted multiple opportunities which the Hillgrove Team are systematically working through.

The ongoing review highlighted the Curry's Block area as having significant potential. This area was covered by a soil sampling program in 2006. This soil sampling was part of a larger program that covered a large section of the EL3326 and EL5973 leases. The results of this sampling showed a multi-element (arsenic, antimony and tungsten) geochemical anomaly over the Curry's Block area but was never followed up.

Figure 5 Curry's Block Location (Hillgrove Gold Project)



Sampling from historical waste dumps at Curry's Block returning assay results of up to 48.9 g/t Au, 10.55 % Sb and 8.8 % W, for further information, refer to the ASX release "High grade gold at Curry's Block" (6 December 2019). Design work has commenced on a drill program to test the mineralisation at Curry's Block with drilling expected to commence in 2020.

## 4. CORPORATE

### 4.1. Financial Performance

Financial performance of the Thalanga Operation is summarised in the table below.

Table 4 Thalanga Operations Financial Summary and Indicative Cash Costs for the December 2019 Quarter (Q2 FY20) and FY20 YTD (unaudited)

	Units	Q2 FY19	Q3 FY19	Q4 FY19	Q1 FY20	Q2 FY20	FY20 YTD
Revenue	\$m	18.2	32.6	30.5	20.9	12.2	33.1
Thalanga Operations EBITDA	\$m	1.7	12.5	7.6	3.0	(2.4)	0.6
<b>Indicative Cash Costs</b>							
Payable zinc metal produced	Mlb	8.2	9.9	9.4	6.1	3.7	9.8
Indicative C1 Cash Cost	US\$/lb payable Zn	0.47	0.14	0.44	0.76	1.13	0.90
Indicative C2 Cost	US\$/lb payable Zn	0.73	0.37	0.68	1.14	1.51	1.28
Indicative C3 Cost	US\$/lb payable Zn	0.93	0.58	0.87	1.35	1.74	1.50
All numbers and data are rounded. Discrepancies in totals may exist due to rounding. Payable metal is derived from concentrate offtake agreements C1 cash cost includes actual cash costs plus notional costs (concentrate logistics and realisation costs) C1 cash cost includes credits for copper, lead, gold and silver notionally priced at for the period (Q1 FY20: copper US\$2.68/lb, lead US\$0.93/lb, gold US\$1482/oz and silver US\$17.30/oz)							

**Revenue** during the quarter was \$12.2 million, with \$6.0 million from sale of zinc metal in concentrate, \$1.3 million from the sale of lead metal in concentrate, \$3.3 million from sale of copper metal in concentrate and \$1.6 million from sale of payable precious metals (gold and silver) contained in copper and lead concentrates.

**Thalanga Operations** quarterly EBITDA (unaudited) was \$(2.4) million, a decrease of \$5.4 million over the prior quarter. Compared to the previous quarter:

- Revenue was \$8.7 million lower due to lower sales volumes (\$9.5 million), being partially offset by higher realised metal prices (\$0.8 million).
- Sales realisation expenses were \$2.2 million lower with higher concentrate treatment charges (\$0.2 million) being more than offset by lower realisation costs due to lower sales volumes.
- Operating costs were \$1.1 million lower with reduced variable mining and processing costs due to the lower tonnes mined and treated.

**C1 Cash costs** for the period increased compared to the prior quarter primarily due to a 39% decrease in payable zinc metal contained in zinc concentrate. This impact was partially offset by higher by-product credits and the lower operating costs mentioned above.

**Cash at bank** at the end of the quarter was \$11.9 million, a decrease of \$5.4 million. This was after investing \$2.3 million in mine development, (primarily the Far West underground mine) and \$0.9 million in exploration.

**Financial assets** at the end of the quarter were \$12.9 million (cash backed security bond deposits).

### 4.2. Royalty Update

Red River and its wholly-owned subsidiary, Cromarty Resources Pty Ltd, have filed their defence and cross claim in the proceedings commenced by Thalanga Copper Mines Pty Ltd on 24 February 2019 and continue to defend the proceedings vigorously. Red River will continue to update the market on these proceedings.



**CAMERON BODLEY**

**Company Secretary**

Red River Resources Limited

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For further information please visit Red River's website [www.redriverresources.com.au](http://www.redriverresources.com.au) or contact us:

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## **COMPETENT PERSON STATEMENT**

### **Exploration Results (Thalanga)**

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.

### **Exploration Results (Hillgrove)**

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

### **Mineral Resources**

The information in this report that relates to the reporting of the Hillgrove Mineral Resource Estimate reported in accordance with the JORC 2012 Code is based on and fairly represents, information and supporting documentation compiled by Rodney Webster who is a Member of The Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists. Mr Webster is independent of Hillgrove Mines Pty Ltd. and an employee of AMC Consultants Pty Ltd. Mr Webster 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 report 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 report



## Appendix A – Tenement Interests

### 1. QUEENSLAND

As at 31 December 2019, Red River had an interest in the following exploration permit minerals (EPM) and mining leases (ML) in Queensland.

Table 5 RVR Exploration Permit Minerals (EPM) (Queensland)

Project	Location	Licence	Beneficial Interest
Thalanga Operations	Queensland	EPM 10582	100%
Thalanga Operations	Queensland	EPM 12766	100%
Thalanga Operations	Queensland	EPM 14161	100%
Thalanga Operations	Queensland	EPM 16929	100%
Thalanga Operations	Queensland	EPM 18470	100%
Thalanga Operations	Queensland	EPM 18471	100%
Thalanga Operations	Queensland	EPM 18713	100%
Thalanga Operations	Queensland	EPM 25815	100%
Thalanga Operations	Queensland	EPM 25895	100%
Thalanga Operations	Queensland	EPM 26718	100%

Table 6 RVR Mining Leases (ML) (Queensland)

Project	Location	Licence	Beneficial Interest
Thalanga Operations	Queensland	ML 1392	100%
Thalanga Operations	Queensland	ML 1531	100%
Thalanga Operations	Queensland	ML 10137	100%
Thalanga Operations	Queensland	ML 10185	100%
Thalanga Operations	Queensland	ML 10186	100%
Thalanga Operations	Queensland	ML 10277	100%

## 2. NEW SOUTH WALES

As at 31 December 2019, Red River had an interest in the following exploration licences (EL), gold leases (GL) mining leases (ML), mining purpose leases (MPL) and private land leases (PLL) in New South Wales (NSW).

Table 7 RVR Exploration Licences (EL) (NSW)

Project	Location	Licence	Beneficial Interest
Hillgrove	NSW	EL 3326	100%
Hillgrove	NSW	EL 5973	100%
Hillgrove	NSW	EL 5997	100%
Hillgrove	NSW	EL 6419	100%
Hillgrove	NSW	EL 5831	100%

Table 8 RVR Mining Leases (ML) (NSW)

Project	Location	Licence	Beneficial Interest
Hillgrove	NSW	ML 205	100%
Hillgrove	NSW	ML 219	100%
Hillgrove	NSW	ML 231	100%
Hillgrove	NSW	ML 391	100%
Hillgrove	NSW	ML 392	100%
Hillgrove	NSW	ML 592	100%
Hillgrove	NSW	ML 600	100%
Hillgrove	NSW	ML 649	100%
Hillgrove	NSW	ML 655	100%
Hillgrove	NSW	ML 714	100%
Hillgrove	NSW	ML 749	100%
Hillgrove	NSW	ML 772	100%
Hillgrove	NSW	ML 810	100%
Hillgrove	NSW	ML 945	100%
Hillgrove	NSW	ML 961	100%
Hillgrove	NSW	ML 972	100%
Hillgrove	NSW	ML 1020	100%
Hillgrove	NSW	ML 1026	100%
Hillgrove	NSW	ML 1100	100%
Hillgrove	NSW	ML 1101	100%
Hillgrove	NSW	ML 1332	100%
Hillgrove	NSW	ML 1440	100%
Hillgrove	NSW	ML 1441	100%
Hillgrove	NSW	ML 1442	100%
Hillgrove	NSW	ML 1598	100%
Hillgrove	NSW	ML 1599	100%
Hillgrove	NSW	ML 1600	100%
Hillgrove	NSW	ML 1601	100%
Hillgrove	NSW	ML 1602	100%
Hillgrove	NSW	ML 1603	100%
Hillgrove	NSW	ML 1604	100%
Hillgrove	NSW	ML 5643	100%
Hillgrove	NSW	ML 6282	100%

Table 9 RVR Gold Leases (GL) (NSW)

Project	Location	Licence	Beneficial Interest
Hillgrove	NSW	GL 3959	100%
Hillgrove	NSW	GL 3980	100%
Hillgrove	NSW	GL 5845	100%

Gold Lease (GL): GLs were a type of mining lease permitted under the *Mining Act 1906* (NSW). They are no longer granted under the *Mining Act 1992* (NSW).

Table 10 RVR Mining Purpose Leases (MPL) (NSW)

Project	Location	Licence	Beneficial Interest
Hillgrove	NSW	MPL 146	100%
Hillgrove	NSW	MPL 220	100%
Hillgrove	NSW	MPL 745	100%
Hillgrove	NSW	MPL 919	100%
Hillgrove	NSW	MPL 1427	100%

Mining Purposes Lease (MPL): MPLs are granted for areas in coal and minerals mining operations such as infrastructure purposes where resource extraction does not take place. Hence, they will appear as 'nil minerals'. MPLs were granted under the 1906 and 1973 Mining Acts. MPLs are no longer granted and leases for mining purposes are now categorised as MLs under the Mining Act 1992 (NSW). The term 'mining purpose(s)' is now referred to as Ancillary Mining Activities

Table 11 RVR Private Land Leases (PLL) (NSW)

Project	Location	Licence	Beneficial Interest
Hillgrove	NSW	PLL 350	100%
Hillgrove	NSW	PLL 416	100%
Hillgrove	NSW	PLL 661	100%
Hillgrove	NSW	PLL 804	100%
Hillgrove	NSW	PLL 1252	100%
Hillgrove	NSW	PLL 3827	100%

Private Lands Lease (PLL): A PLL was a type of Mining Lease to extract minerals or petroleum granted under the 1906, 1918, and 1924 Mining Acts. PLLs are no longer granted

## 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 Thalanga (West 45 and Far West) deposit. The Metallurgical Recovery for each metal is shown below in Table 1.

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

Table 1 Metallurgical Recoveries and Metal Prices

			<b>Thalanga (West 45 and Far West)</b>
Metal	Units	LT Price	
Copper	US\$/lb	US\$3.00	80%
Lead	US\$/lb	US\$0.90	70%
Zinc	US\$/lb	US\$1.00	88%
Gold	US\$/oz	US\$1,200	50%
Silver	US\$/oz	US\$17.00	65%

**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. Three separate saleable base metal concentrates (copper, lead and zinc) are currently being produced from West 45 and Far West. 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:

$$\text{Zn Eq.} = (\text{Zn}\% * 1.0) + (\text{Cu}\% * 3.3) + (\text{Pb}\% * 0.9) + (\text{Au ppm} * 0.5) + (\text{Ag ppm} * 0.025)$$

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

Mineral Resource	Copper (CuMEF)	Lead (PbMEF)	Zinc (ZnMEF)	Gold (AuMEF)	Silver (Ag MEF)
<b>Thalanga (West 45 and Far West)</b>	3.3	0.9	1.0	0.5	0.025



## Gold Equivalent Calculation

It is Hillgrove Mines Pty Ltd opinion that all the elements included in the metal equivalent calculation have a reasonable potential to be recovered and sold, based on previous mill production and sales. The gold equivalent (Au Eq.) and the cut-off are based on the following:

- *Metallurgical testwork (carried out in 2016 and 2017) and mill production data demonstrates that total gravity/float recoveries of 91% gold (Au) and 86% antimony (Sb) are achievable.*
- *Net smelter return calculations for the deposits indicate that Au Eq. grades above 4.8 g/t are economic, based on site costs, mill recoveries, off-site transportation and royalty costs.*
- *The Sunlight deposit has a particle gold component that is amenable to gravity separation that represents 20% of total gold recovery.*

Au Eq. was calculated based on commodity prices as at 18 July 2017. The individual grades, the assumed commodity prices and metal recoveries, and the Au Eq. formula are as follows:

- $Au Eq. (g/t) = (Au g/t * 91\%) + (2.0 * Sb \% * 86\%)$ 
  - *Where 2.0 = (US\$7,950/100) / (US\$1,234/31.1035)*
  - *Gold price = US\$1,234/oz and gold recovery = 91%*

Antimony price = US\$7,950/tonne and antimony recovery = 86%

## Appendix 5B

# Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13, 01/09/16

### Name of entity

Red River Resources Limited

### ABN

35 100 796 754

### Quarter ended ("current quarter")

December 2019

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers	13,316	34,444
1.2 Payments for		
(a) exploration & evaluation	(928)	(1,820)
(b) development	(2,259)	(5,762)
(c) production	(8,537)	(19,911)
(d) staff costs	(2,603)	(4,954)
(e) administration	(222)	(415)
(f) corporate costs	(1,069)	(1,618)
(g) sales realisation expenses	(4,055)	(12,730)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	74	212
1.5 Interest and other costs of finance paid	(15)	(177)
1.6 Income taxes paid	-	-
1.7 Research and development refunds	-	-
1.8 GST / BAS (provide details if material)	458	(1,315)
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(5,840)</b>	<b>(14,046)</b>
<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire:		
(a) property, plant and equipment	(91)	(268)
(b) tenements (see item 10)	-	-

<b>Consolidated statement of cash flows</b>	<b>Current quarter \$A'000</b>	<b>Year to date (6 months) \$A'000</b>
(c) investments	-	-
(d) other non-current assets	-	-
<b>2.2</b> Proceeds from the disposal of:		
(a) property, plant and equipment	-	-
(b) tenements (see item 10)	-	-
(c) investments	-	-
(d) other non-current assets	-	-
<b>2.3</b> Cash flows from loans to other entities	-	-
<b>2.4</b> Dividends received (see note 3)	-	-
<b>2.5</b> Other (provide details if material) (primarily increase in rehabilitation bond)	(10)	(87)
<b>2.6</b> <b>Net cash from / (used in) investing activities</b>	<b>(101)</b>	<b>(355)</b>

<b>3. Cash flows from financing activities</b>		
3.1 Proceeds from issues of shares	-	-
3.2 Proceeds from issue of convertible notes	-	-
3.3 Proceeds from exercise of share options	-	-
3.4 Transaction costs related to issues of shares, convertible notes or options	(3)	(18)
3.5 Proceeds from borrowings	767	767
3.6 Repayment of borrowings	(230)	(364)
3.7 Transaction costs related to loans and borrowings	-	-
3.8 Dividends paid	-	-
3.9 Other (provide details if material)	-	-
<b>3.10</b> <b>Net cash from / (used in) financing activities</b>	<b>534</b>	<b>385</b>

<b>4. Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1 Cash and cash equivalents at beginning of period	17,311	25,918
4.2 Net cash from / (used in) operating activities (item 1.9 above)	(5,840)	(14,046)
4.3 Net cash from / (used in) investing activities (item 2.6 above)	(101)	(355)
4.4 Net cash from / (used in) financing activities (item 3.10 above)	534	385

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (6 months) \$A'000</b>
4.5	Effect of movement in exchange rates on cash held	-	-
<b>4.6</b>	<b>Cash and cash equivalents at end of period</b>	<b>11,903</b>	<b>11,903</b>

<b>5.</b>	<b>Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	<b>Current quarter \$A'000</b>	<b>Previous quarter \$A'000</b>
5.1	Bank balances	11,903	7,911
5.2	Call deposits	-	9,400
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
<b>5.5</b>	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>11,903</b>	<b>17,311</b>

**6. Payments to directors of the entity and their associates**

- 6.1 Aggregate amount of payments to these parties included in item 1.2
- 6.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2

**Current quarter  
\$A'000**

157  
NIL

Director fees (NED and Executive) - \$157,000

**7. Payments to related entities of the entity and their associates**

- 7.1 Aggregate amount of payments to these parties included in item 1.2
- 7.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2

**Current quarter  
\$A'000**

34  
NIL

Provision of accounting, taxation and corporate secretarial services – Hanson Porter Curzon Pty Ltd

## Mining exploration entity and oil and gas exploration entity quarterly report

<b>8. Financing facilities available</b> <i>Add notes as necessary for an understanding of the position</i>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
8.1 Loan facilities	USD10,000	-
8.2 Credit standby arrangements	30	1
8.3 Other (please specify)	-	-
8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.		

8.1 USD Credit Facility

8.2 Credit card facility.

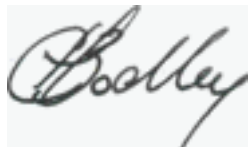
<b>9. Estimated cash outflows for next quarter</b>	<b>\$A'000</b>
9.1 Exploration and evaluation	900
9.2 Development (capital)	2,500
9.3 Production	12,000
9.4 Staff costs (included in production / development costs)	2,500
9.5 Administration and Corporate costs	800
9.6 Other (sales realisation costs)	6,000
<b>9.7 Total estimated cash outflows</b>	<b>22,200</b>

<b>10. Changes in tenements (items 2.1(b) and 2.2(b) above)</b>	<b>Tenement reference and location</b>	<b>Nature of interest</b>	<b>Interest at beginning of quarter</b>	<b>Interest at end of quarter</b>
10.1 Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced	-	-	-	-
10.2 Interests in mining tenements and petroleum tenements acquired or increased	EL 5831 Hillgrove Gold Project, NSW.	Granted	0%	100 %



**Compliance statement**

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.



17 January 2020

Sign here: .....

Date: .....

Company secretary

Cameron Bodley

Print name: .....

**Notes**

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.