



ASX Announcement

ASX Code: RVR

28 April 2022

## Quarterly Activities Report for the period ending 31 March 2022

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### Thalanga Mine

- Quarterly zinc concentrate production of 4,858 DMT, lead concentrate production of 1,129 DMT and copper concentrate production of 2,302 DMT
- Drilling continued at Liontown with eight diamond drill holes completed (2,331m); assays pending
- Numerous high-grade assays were received for Liontown which supports the resource estimate and identifies several areas for extensions.

### Hillgrove Gold Project

- Preparations for underground mining restart at Syndicate continues; nearing an appointment of a mining contractor and offtake partner for antimony and gold concentrates
- Drilling continued at Hillgrove with 11 diamond drill holes (2,948m) completed at Sunlight, Eleanora, Cosmopolitan and Freehold; assays pending
- Several assays were received for Eleanora-Garibaldi with two holes highlighting the resource potential beneath the existing Garibaldi pit; follow up drilling is planned in June 2022 quarter.

### Corporate

- Net revenue for the quarter was \$23.5 million, with \$23.2 million generated at Thalanga Operations and \$0.3 million from Hillgrove Gold Mine
- Cash balance of \$10.1 million plus financial assets of \$18.6 million (cash backed security bonds and deposits) as at 31 March 2022
- \$1.3 million invested in capital development, primarily at Far West
- \$0.5 million invested in project capital at Hillgrove and Thalanga
- \$1.5 million invested in exploration activities at Thalanga and Hillgrove Operations
- Red River repaid US\$2.0 million on the working capital facility during the quarter and the remaining US\$6.0 million will be repaid at US\$2.0 million per quarter for the remainder of CY2022.

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

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

Thalanga's site headcount during the period was 151 people. There were 67 full-time Red River Resources employees and an additional 84 contractors working in exploration and mining, with a total 96,435 hours worked. The Total Recordable Injury Frequency Rate (TRIFR) is 10.7 for March YTD. There were zero medically treated injuries during the quarter, and zero Lost Time Injury (LTIs).

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

Hillgrove's site headcount during the period was 62 people including contractors with 34,295 hours worked. The Total Recordable Injury Frequency Rate (TRIFR) is 7.3 for March YTD. There were zero medically treated injuries during the quarter, and zero Lost Time Injuries (LTIs).

### **1.3. Coronavirus (COVID-19) Update**

Red River continues to implement preventative measures to reduce risk to employees and operations at all sites. These preventative measures include increased hygiene practices, restrictions on non-essential travel, social distancing, limiting visitors to site and remote working where possible.

Reduced mining production labour levels as a result of COVID negatively impacted production at Thalanga during the quarter. Red River continues to work closely with the mining contractor to ensure manning levels are as close to plan as possible.

## **2. THALANGA BASE METAL OPERATIONS (QUEENSLAND)**

Red River's Thalanga Operations 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.

Thalanga is 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 Operations in 2014 and commenced production from the West 45 deposit in 2017. Production from West 45 ceased in 2020 and ore for the Thalanga Operation is currently being sourced from the Far West underground mine, with plans to develop the Lione town deposit to extend the operational life of Thalanga.

### **2.1. Operations Update**

Thalanga Operations mined 76kt @ 1.2% Cu, 1.5% Pb, 3.9% Zn, 0.2 g/t Au & 39 g/t Ag (10.4% Zn Eq.), and processed 74kt of ore grading 1.0% Cu, 1.5% Pb, 4.1% Zn, 0.2 g/t Au & 33 g/t Ag (9.6% Zn Eq.).

Reduced labour levels due to COVID-19 and higher turnover impacted underground production in January and February; Personnel and production returned to normal levels during March. The updated ground control management plan has also been fully implemented reducing the rehabilitation needed of ore drives being actively stoped.

Copper concentrate production for the quarter was 2,302 DMT. Copper recovery to copper concentrate averaged 79.1% for the period, with an average copper concentrate grade of 25.5% Cu, 2.6 g/t Au and 234 g/t Ag.

Zinc concentrate production for the quarter was 4,858 DMT zinc. Zinc recovery to zinc concentrate averaged 88.2% for the period and a high-quality zinc concentrate grading 55.1% zinc was produced.

Lead concentrate production for the quarter was 1,129 DMT lead concentrate produced. Lead recovery to lead concentrate was 67.9%, with an average concentrate grade of 64.7% Pb, 2.1 g/t Au & 1,108 g/t Ag produced during the period.

### **2.2. Concentrates Sales & Marketing**

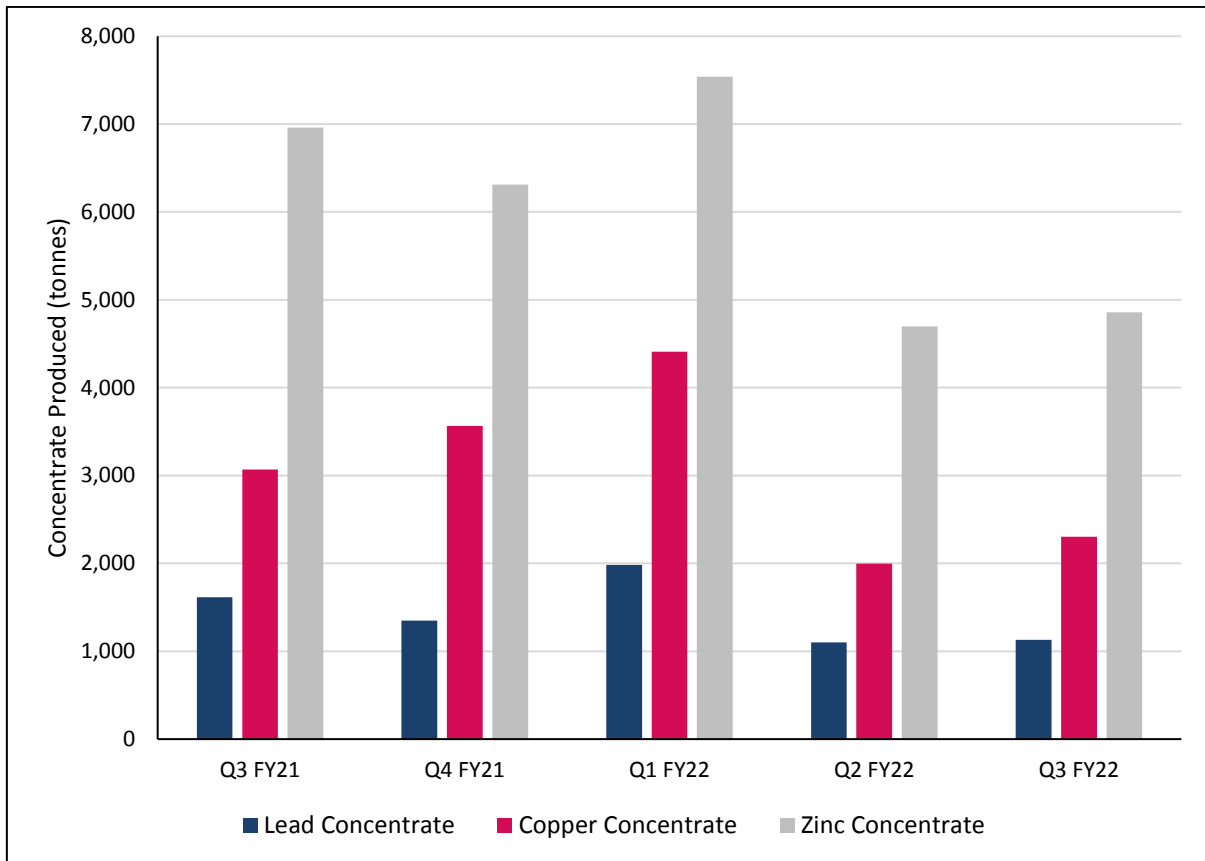
Thalanga sold 4,589 DMT zinc concentrate, 1,098 DMT lead concentrate and 2,328 DMT copper concentrate during the quarter.

Red River delivered base metal concentrates under long-term offtake agreements to Trafigura (zinc and lead concentrate) and Glencore (copper concentrate).

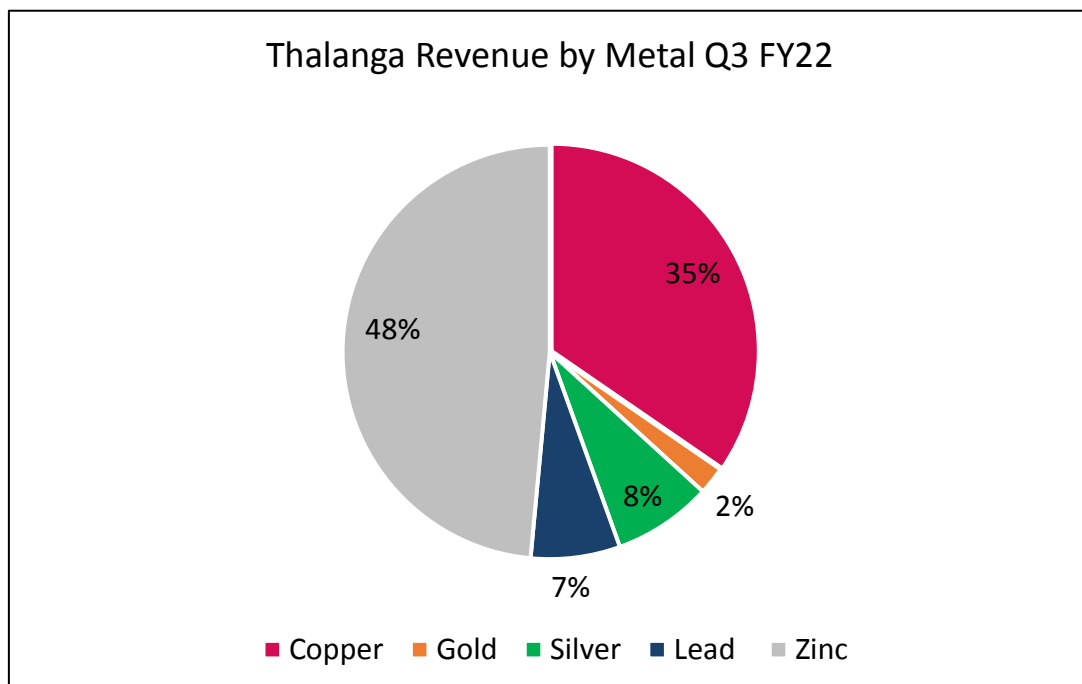
The Company continued to execute a short-term hedging program over the quotation period (QP) for sales of zinc and lead metal already produced. Typically, between 80 and 90% of the payable zinc and lead metal for each shipment of zinc and lead concentrates was hedged for the period from the issue of the first provisional sales invoice to the final settlement of the sale, which may occur one to three months later. The QP hedges currently in place on the quarter's zinc concentrate sales range between US\$1.65 and US\$2.00 per pound of payable zinc metal, were US\$1.04 per pound of payable lead metal in lead concentrate and ranged between US\$4.45 and US\$4.73 per pound of payable copper metal in copper concentrate.

**Table 1: Thalanga Operations Summary for Q3 FY2022 (Quarter ended 31 March 2022)**

|                                    | Units      | Q3<br>FY21   | Q4<br>FY21   | Q1<br>FY22   | Q2<br>FY22   | Q3<br>FY22   | YTD<br>FY22   |
|------------------------------------|------------|--------------|--------------|--------------|--------------|--------------|---------------|
| <b>Total Tonnes Mined</b>          | <b>kt</b>  | <b>87</b>    | <b>101</b>   | <b>103</b>   | <b>62</b>    | <b>76</b>    | <b>241</b>    |
| Copper grade                       | %          | 1.2          | 1.2          | 1.3          | 1.3          | 1.2          | 1.3           |
| Lead grade                         | %          | 1.4          | 1.3          | 1.6          | 1.6          | 1.5          | 1.6           |
| Zinc grade                         | %          | 4.3          | 4.0          | 4.4          | 4.6          | 3.9          | 4.3           |
| Gold grade                         | g/t        | 0.2          | 0.2          | 0.2          | 0.2          | 0.2          | 0.2           |
| Silver grade                       | g/t        | 43           | 40           | 37           | 39           | 39           | 38            |
| Zinc equivalent grade              | %          | 10.8         | 10.1         | 11.1         | 12.0         | 10.4         | 11.1          |
| <b>Ore Processed</b>               | <b>kt</b>  | <b>95</b>    | <b>97</b>    | <b>107</b>   | <b>62</b>    | <b>74</b>    | <b>243</b>    |
| Copper grade                       | %          | 1.1          | 1.1          | 1.3          | 1.1          | 1.0          | 1.2           |
| Lead grade                         | %          | 1.7          | 1.4          | 1.6          | 1.7          | 1.5          | 1.6           |
| Zinc grade                         | %          | 4.4          | 3.9          | 4.3          | 4.5          | 4.1          | 4.3           |
| Gold grade                         | g/t        | 0.2          | 0.2          | 0.3          | 0.3          | 0.2          | 0.3           |
| Silver grade                       | g/t        | 49           | 44           | 45           | 52           | 33           | 43            |
| Zinc equivalent grade              | %          | 10.9         | 10.0         | 11.4         | 11.1         | 9.6          | 10.8          |
| <b>Zinc Concentrate Produced</b>   | <b>DMT</b> | <b>6,959</b> | <b>6,311</b> | <b>7,539</b> | <b>4,697</b> | <b>4,858</b> | <b>17,094</b> |
| Zinc grade                         | %          | 53.4         | 52.7         | 54.4         | 51.9         | 55.1         | 53.9          |
| Zinc recovery                      | %          | 89.1         | 89.0         | 88.7         | 87.3         | 88.2         | 88.2          |
| <b>Lead Concentrate Produced</b>   | <b>DMT</b> | <b>1,613</b> | <b>1,350</b> | <b>1,984</b> | <b>1,100</b> | <b>1,129</b> | <b>4,213</b>  |
| Lead grade                         | %          | 67.1         | 68.1         | 62.7         | 62.2         | 64.7         | 63.1          |
| Gold grade                         | g/t        | 5.1          | 4.0          | 3.8          | 3.7          | 2.1          | 3.3           |
| Silver grade                       | g/t        | 1,541        | 1,447        | 1,304        | 1,458        | 1,108        | 1,292         |
| Lead recovery                      | %          | 69.2         | 66.2         | 71.5         | 64.8         | 67.9         | 68.6          |
| <b>Copper Concentrate Produced</b> | <b>DMT</b> | <b>3,068</b> | <b>3,565</b> | <b>4,411</b> | <b>1,996</b> | <b>2,302</b> | <b>8,709</b>  |
| Copper grade                       | %          | 25.7         | 24.0         | 27.0         | 26.9         | 25.5         | 26.6          |
| Gold grade                         | g/t        | 1.7          | 1.8          | 2.1          | 3.6          | 2.6          | 2.6           |
| Silver grade                       | g/t        | 318          | 351          | 312          | 388          | 234          | 309           |
| Copper recovery                    | %          | 74.5         | 80.1         | 84.5         | 79.7         | 79.1         | 81.9          |
| <b>Zinc concentrate sold</b>       | <b>DMT</b> | <b>6,700</b> | <b>6,261</b> | <b>7,501</b> | <b>4,929</b> | <b>4,589</b> | <b>17,019</b> |
| <b>Lead concentrate sold</b>       | <b>DMT</b> | <b>1,484</b> | <b>1,471</b> | <b>1,983</b> | <b>1,137</b> | <b>1,098</b> | <b>4,218</b>  |
| <b>Copper concentrate sold</b>     | <b>DMT</b> | <b>3,025</b> | <b>3,398</b> | <b>4,588</b> | <b>2,022</b> | <b>2,328</b> | <b>8,938</b>  |



**Figure 1: Thalanga Quarterly Concentrate Production**

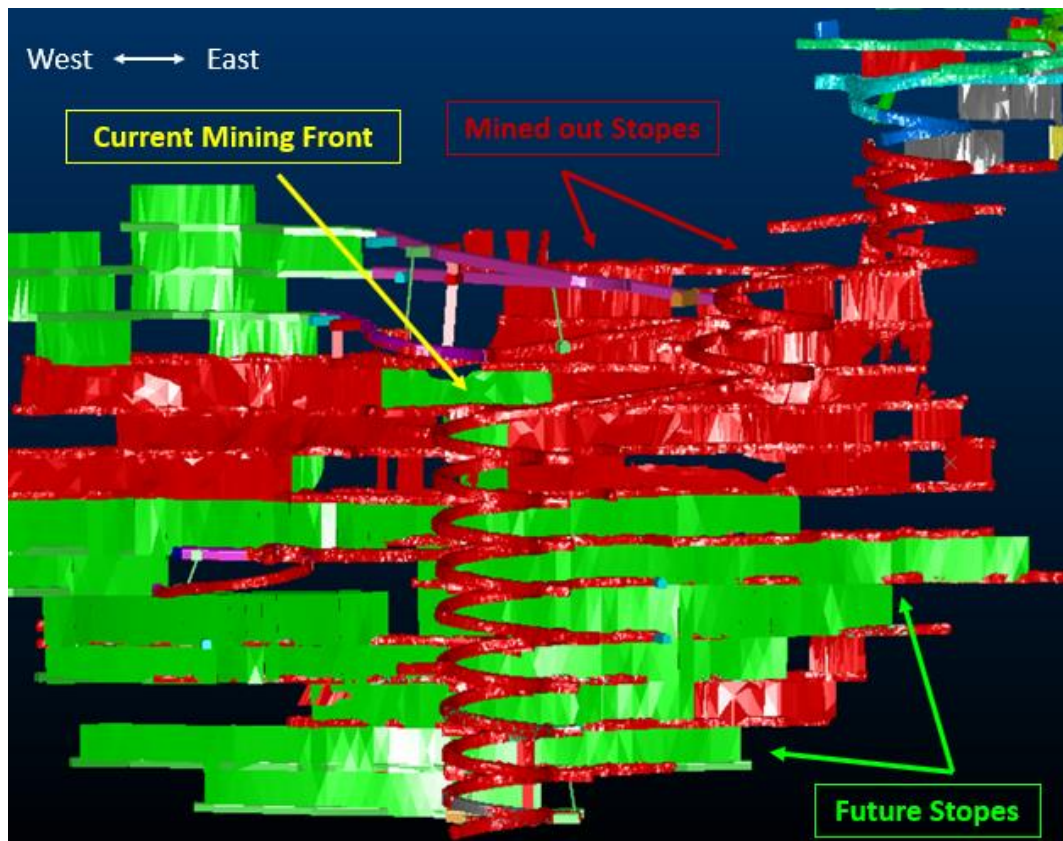


**Figure 2: Thalanga Q3 FY22 Revenue Split**

### 2.3. Project Development Activities

During the quarter, Red River continued to develop Thalanga's Far West UG Mine with:

- Capital development of 186m completed (89m of lateral capital development and 97m of decline development). The main decline has now been developed to the bottom of the Far West orebody.
- Operating Development of 384m
- Total Development during the quarter was 584m (including 14m of vertical development).



**Figure 3:** Long Section of Thalanga (Far West facing North) ~ March 31 2022

Red River continued drilling underground at Far West to define lower extensions to the ore body, completing four diamond holes for 1,101m. No material extensional results were received and underground drilling has now ceased.

#### 2.3.1 Liontown Development

Liontown is a high-grade, gold-rich polymetallic deposit and is set to be Red River's third deposit developed for mining at Thalanga.

The Liontown Project has a current Mineral Resource of 4.1Mt @ 0.6% Cu, 1.9% Pb, 5.9% Zn, 1.1 g/t Au & 29 g/t Ag (12.7% Zn Eq) and is located approximately 32km in a direct line from Red River's Thalanga operations and 107km by road.

During the quarter, Red River continued permitting, mine design and scheduling activities for the Liontown Project.

Red River submitted applications for the environmental approvals for Liontown in October 2021 and received queries from the Queensland Department of Environment and Science in February 2022. Those queries were

responded to promptly and we continue to wait for further news on permitting progress, which is expected in the June quarter. Red River is also progressing native title negotiations and mining lease approvals in parallel. Water pipeline infrastructure mining lease application will also be submitted in the June quarter. Tenders for early works and mining are progressing well (Note: mining leases cannot be activated until environmental and native title approvals are in place.). Red River is planning for production to commence from Liontown in H2 CY2022.

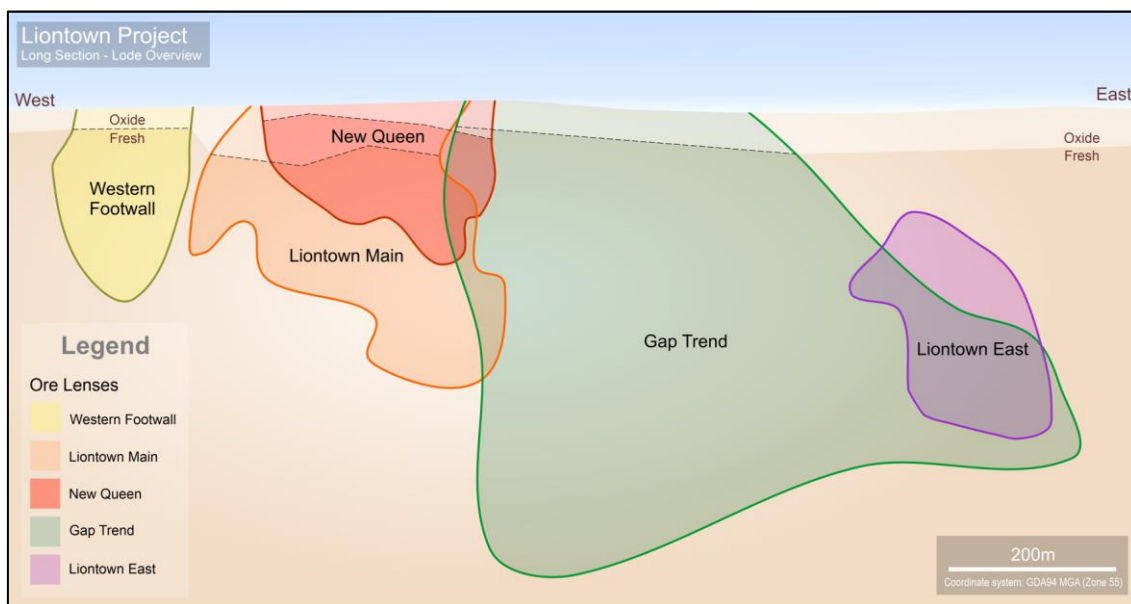
Strong commodity prices combined with earlier access indicates that an open pit will be best way to develop the initial stage of Liontown then transitioning into an underground operation.

Liontown drilling continued, with eight diamond holes completed for a total of 2,331m (Table 2). Drilling aimed to delineate resources to be mined in the early years of production and then will focus on resource extensions.

**Table 2:** Thalanga Drilling completed in Q3 FY22 (assays pending)

| Location      | Hole Type | Holes Completed | Total Metres Drilled |
|---------------|-----------|-----------------|----------------------|
| Liontown Main | DD        | 5               | 1,611                |
| The Gap Trend | DD        | 3               | 720                  |
| <b>Total</b>  |           | <b>8</b>        | <b>2,331</b>         |

Red River received assays for earlier drilling programs, delivering significant results in the Main Lode, New Queen, Western Footwall and Lower Carrington (Figure 4) (ASX announcement 22 February 2022 and 23 March 2022).



**Figure 4:** Long Section of mineralised zones at Liontown

Results received from Red River’s successful reverse circulation (RC) drilling program at Liontown (ASX Announcement 22 February 2022) included:

Mineral Resource (Au oxide) infill holes:

- 10m @ 2.7 g/t Au from 41.0m downhole (LLRC224 – New Queen east)

- 6m @ 3.6g/t Au from 22.0m downhole (LLRC223 – New Queen east)
- 5m @ 3.1 g/t Au from 25.0m downhole (LLRC208 – New Queen west)
- 15m @ 1.9g/t Au from 46.0m downhole (LLRC221 – Main Lode)
- 4m @ 4.3g/t Au from 48.0m downhole (LLRC204 – Main Lode)

Mineral Resource (fresh sulphides) infill hole results:

- 10m @ 9.1% Zn Eq. from 87.0m downhole (LLRC202 - New Queen Resource)
- 7m @ 5.9% Zn Eq. from 102.0m downhole (LLRC218 – Western Footwall Resource)
- 3m @ 5.3% Zn Eq. from 134.0m downhole (LLRC216 – Western Footwall Resource)

Results outside current Mineral Resource:

- 13m @ 8.1% Zn Eq. from 171.0m downhole (LLRC217 – Western Footwall Lode 2)
- 12m @ 9.5% Zn Eq. from 68.0m downhole (LLRC216 – Western Footwall Lode 2)
- 7m @ 5.9% Zn Eq. from 102.0m downhole (LLRC218 – Western Footwall Lode 2)
- 4m @ 10.1 g/t Au from 88.0m downhole (LLRC220 – WF to NQ Au trend)
- 4m @ 13.9 % Zn Eq. from 148.0m downhole (LLRC219 – Lower West Carrington)
- 4m @ 8.4% Zn Eq. from 156.0m downhole (LLRC204 – Lower Carrington).

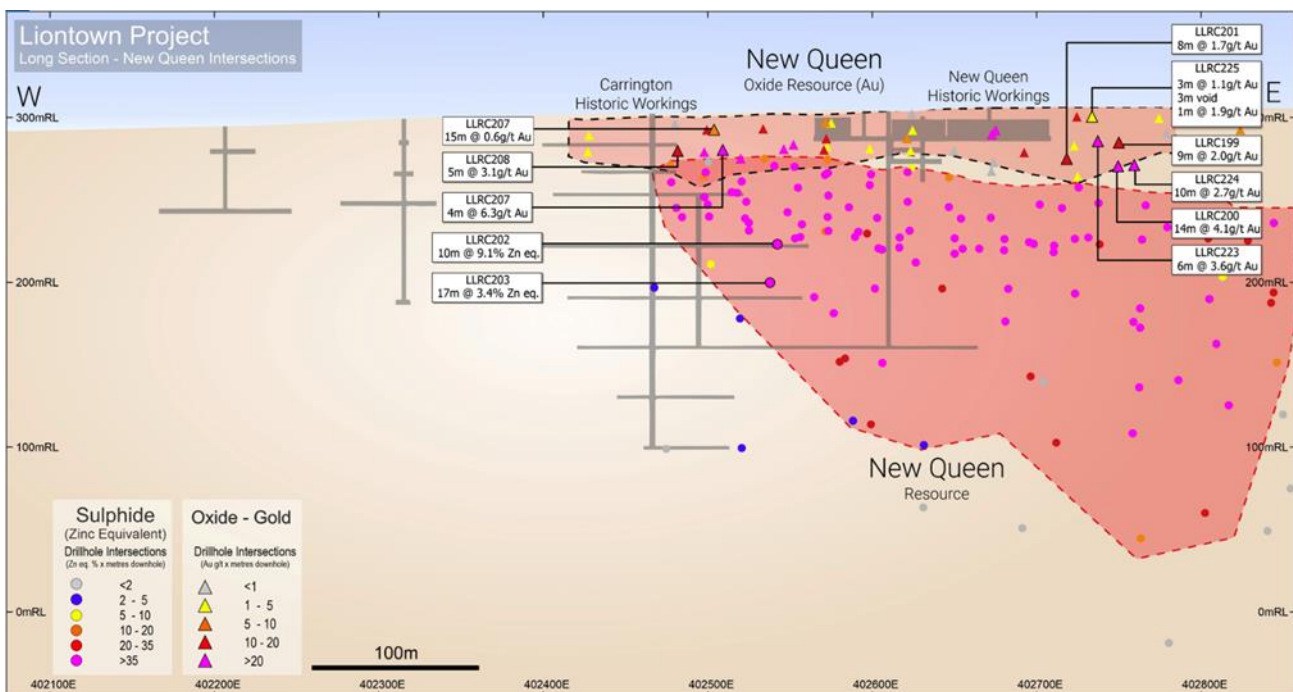


Figure 5: Long Section New Queen



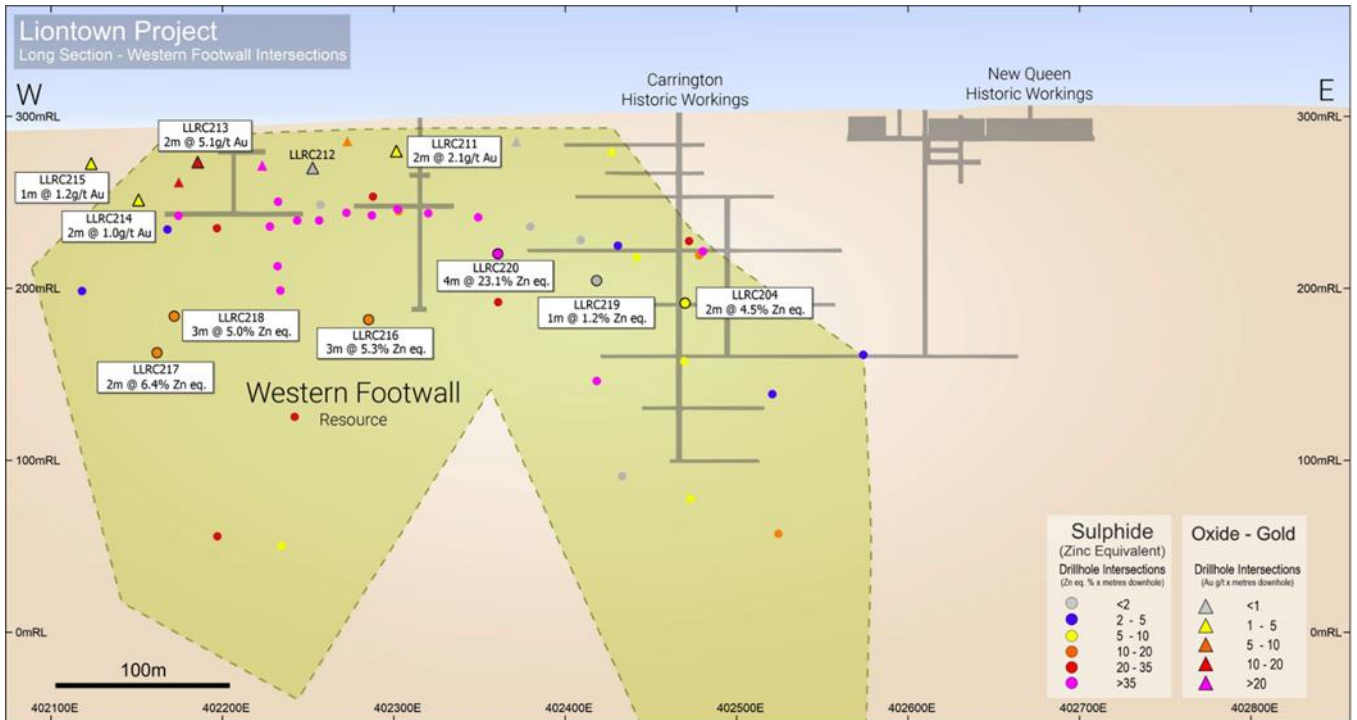


Figure 6: Long Section Western Footwall and WF-NQ Gap

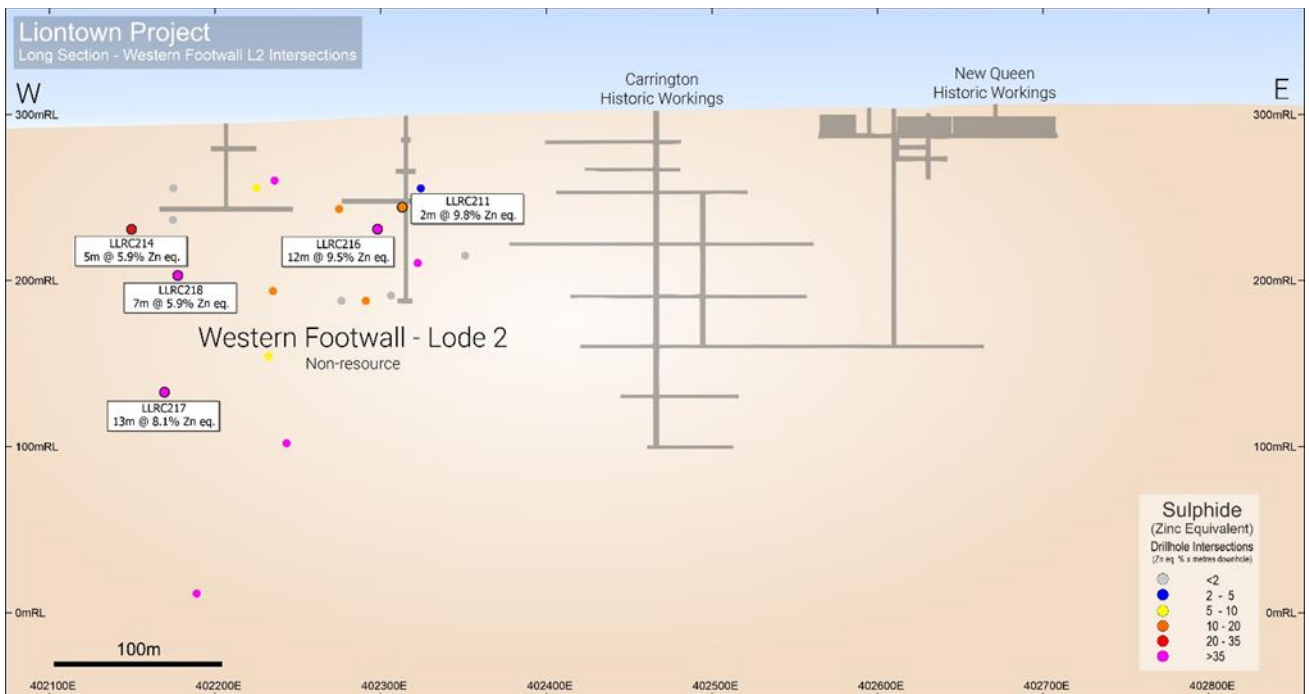


Figure 7: Long Section Western Footwall Lode 2

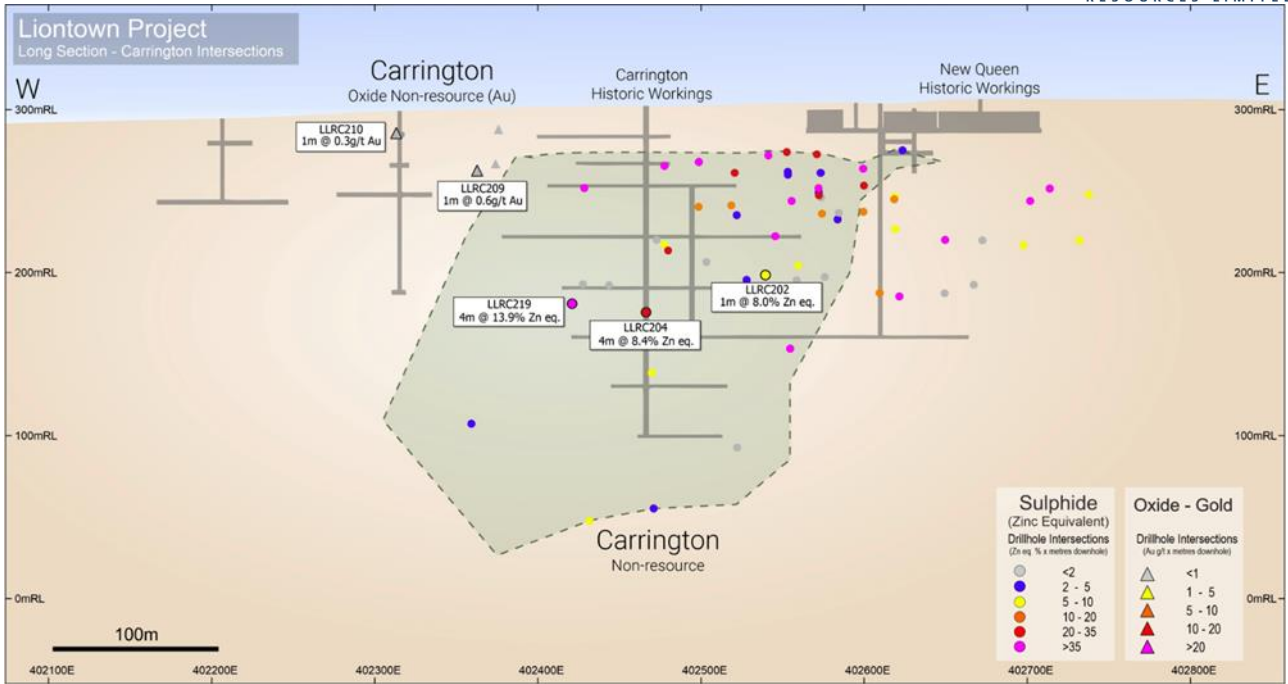


Figure 8: Long Section Carrington

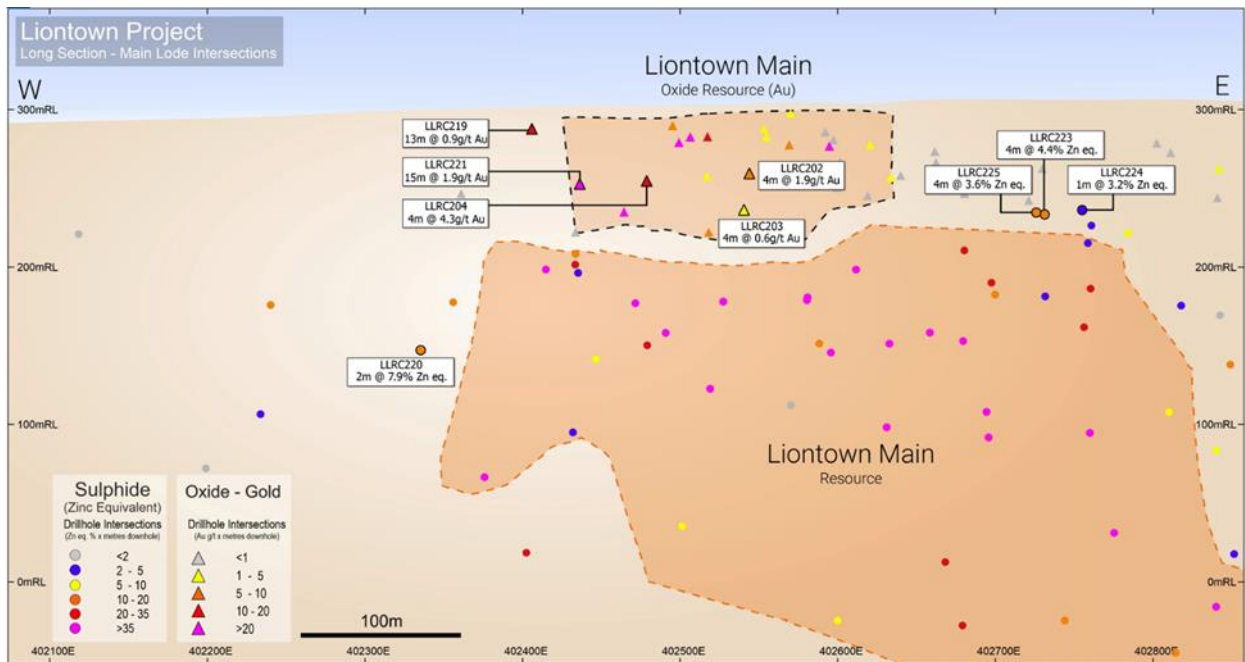


Figure 9: Long Section Main Lode

Results received for first nine holes of Red River's 2022 Mineral Resource definition drill program at Lione town, Main Lode Mineral Resource infill holes included (ASX Announcement 23 March 2022):

- 18.7m @ 10.6% Zn Eq. from 250.3m downhole (LTDD20137 – Main Lode 1 & 3)
- 5.8m @ 13.2% Zn Eq. from 331.8m downhole (LTDD21038 – Main Lode 1)
- 6.0m @ 10.2 % Zn Eq. from 276.4m downhole (LTDD21040 – Main Lode 1)
- 4.9m @ 20.4% Zn Eq. from 324.6m downhole (LTDD21041 – Main Lode 1)
- 2.6m @ 9.2% Zn Eq. from 321.0m downhole (LTDD21044 – Main Lode 1)
- 10.0m @ 15.0% Zn Eq. from 264.0m downhole (LTDD21046 – Main Lode 3)
- 3.0m @ 7.7 % Zn Eq. from 279.0m downhole (LTDD21046 – Main Lode 1)
- 5.7m @ 18.8% Zn Eq. from 235.9m down hole (LTDD21048 – Main Lode 1 and 3)



**Figure 10:** Massive, semi massive and banded mineralisation of LTDD21048

Interval A from 235.85m, 0.5m at 0.8% Cu, 8.2% Pb, 14.1% Pb, 1.9g/t Au and 182g/t Ag (32.3% Zn eq.)

Interval B from 236.35m, 0.7m at 0.8% Cu, 7.3% Pb, 12.4% Zn, 2.5g/t Au and 234g/t Ag (32.3% Zn eq.)

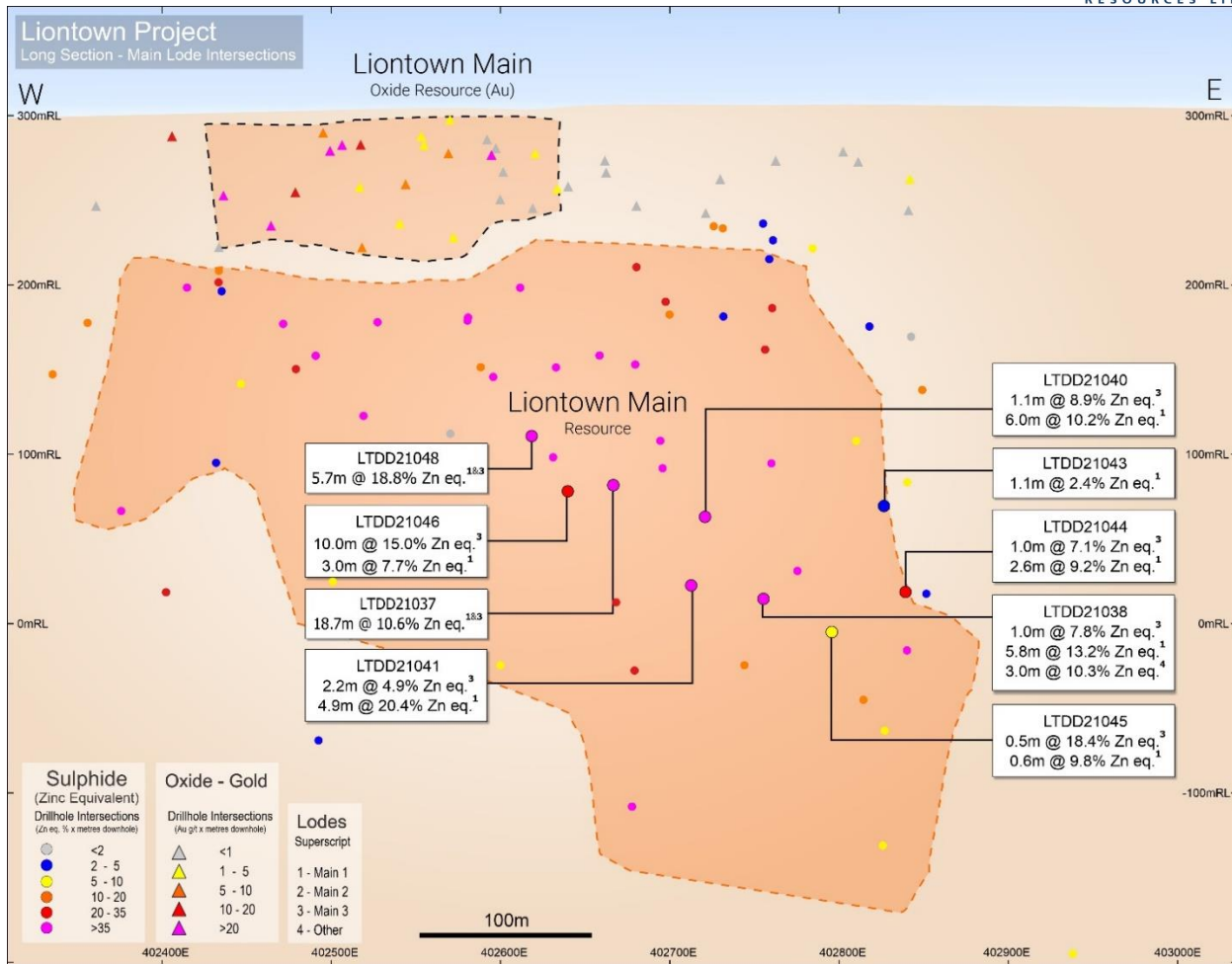


Figure 11: Long Section of Main Lode drill intersections (Main 1) and recent drill results

## 2.4. Exploration Activities

Assay results were received completed RC program at Max Cu, Cougartown and Cougartown West (Figure 12) (ASX Announcement 20 January 2022)

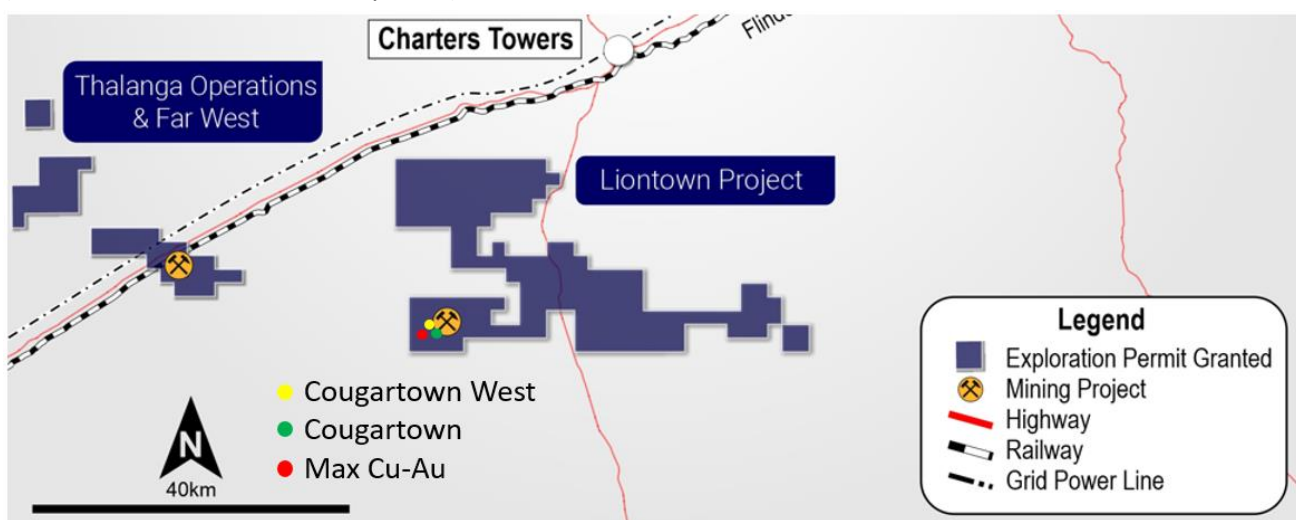


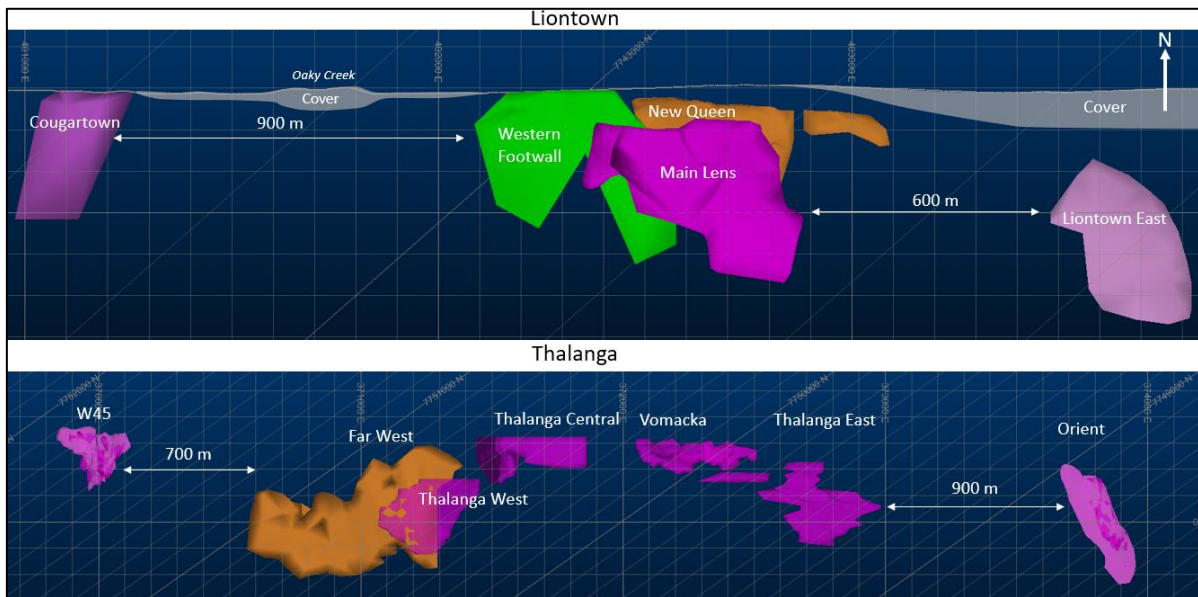
Figure 12: Location of Exploration programs drilled

Cougartown prospect intercepts included:

- 86m @ 2.3% Zn Eq. from 0m (CGRC004)
- 43m @ 1.6% Zn Eq. from 55m (CGRC001)
- 18m @ 1.6% Zn Eq. from 101m and 16m @ 1.7% Zn Eq. from 142m (CGRC003).

Cougartown West prospect intercepts included:

- 40m @ 3.0% Zn Eq. from 67m (CWRC002).



**Figure 13:** 3D comparison of Liontown Project including Cougartown prospect and the Thalanga system

### 3. HILLGROVE OPERATIONS (NEW SOUTH WALES)

Red River's Hillgrove operation is located 30km from Armidale in New South Wales in. Historic mining activity commenced at the site in 1857 and ceased in 1921 and recommenced in 1969. To date, Hillgrove has produced more than 730,000 ounces of gold (in bullion and concentrates), more than 50,000 tonnes of antimony (as metal and in concentrates) plus material amounts of by-product tungsten (in concentrates). The Hillgrove Operation has a Mineral Resource of 7.23Mt @ 4.5g/t Au & 1.2% Sb containing 1.04 million ounces of gold and 90kt of antimony.

#### 3.1. Operations Update

Red River produced and sold 117ozs of contained gold in doré at Hillgrove for the quarter. This production came from the clean-out of the process plant. Red River has identified additional gold bearing residues stored in tailings dam 2 and completed testwork which indicated that it is amenable to leaching and then recovery through the carbon in pulp process (CIL). Red River made preparations to the plant to treat this material in the June quarter whilst preparing for the restart of underground mining at Syndicate (ASX Announcement 23 November 2021). These gold residues will keep the processing plant producing for up to three months or until the underground ore supply commences.

The Hillgrove site has received substantial rainfall over the past 15 months with the recent La Nina weather pattern. Red River has leased and installed a reverse osmosis and micro-filtration plant to effectively treat and reuse the water for production activities and ensure the site remains in compliance.

**Table 3:** Hillgrove Gold Mine Summary for Q3 FY2022 (Quarter ended 31 March 2022)

|  | Units | Q3<br>FY21 | Q4<br>FY21  | Q1<br>FY22  | Q2<br>FY22 | Q3<br>FY22 | YTD<br>FY22  |
|--|-------|------------|-------------|-------------|------------|------------|--------------|
| <b>Ore Processed</b>                       | kt    | <b>31</b>  | <b>42</b>   | <b>40</b>   | -          | -          | <b>40</b>    |
| Gold grade                                 | g/t   | 1.6        | 1.4         | 1.5         | -          | -          | 1.5          |
| <b>Gravity gold concentrate produced</b>   | DMT   | <b>12</b>  | <b>18</b>   | <b>19</b>   | -          | -          | <b>19</b>    |
| Gold grade                                 | g/t   | 1,314      | 1,494       | 1,632       | -          | -          | 1,632        |
| Gold recovery to gravity concentrate       | %     | 31.3       | 47.1        | 49.7        | -          | -          | 49.7         |
| Gold recovered to gravity concentrate      | ozs   | 498        | 882         | 1,008       | -          | -          | 1,008        |
| <b>Flotation gold concentrate produced</b> | DMT   | <b>225</b> | <b>255</b>  | <b>234</b>  | -          | -          | <b>234</b>   |
| Gold grade                                 | g/t   | 56         | 57          | 68          | -          | -          | 68           |
| Gold recovery to flotation concentrate     | %     | 25.5       | 24.9        | 25.2        | -          | -          | 25.2         |
| Gold recovered to flotation concentrate    | ozs   | 407        | 467         | 512         | -          | -          | 512          |
| Gold (cont. in gold dore)                  | ozs   | 260        | 1,054       | 667         | 494        | 117        | 1,161        |
| <b>Gold Produced</b>                       | ozs   | <b>667</b> | <b>1521</b> | <b>1179</b> | <b>494</b> | <b>117</b> | <b>1,790</b> |
| <b>Gold Sold</b>                           | ozs   | <b>260</b> | <b>1408</b> | <b>1362</b> | <b>778</b> | <b>117</b> | <b>2,257</b> |

Discussions with mining contractors are at an advanced stage and once concluded, Red River will be in a position to inform the market when underground mining can restart.

Offtake discussions for the antimony and gold are progressing with various parties with lots of interest shown. The company expects that the mining contract and the offtake agreements are executed as close as possible to manage commercial risk.

Covid and high demands in the mining industry have slowed the engagement process for both the mining contract and offtake, however the company is now well advanced and production is anticipated in the September quarter.

Recruitment for key on-site roles is progressing well and Red River has been pleased by the significant interest of highly skilled professionals looking to take advantage of residential lifestyle offered by working at Hillgrove. Red River has submitted applications to undertake two lifts on tailings dam 2 to ensure adequate future capacity to treat Syndicate ore.

### 3.2. Exploration Activities

Red River continued successful exploration at Hillgrove over the quarter, completing drilling programs at Sunlight, Eleanora, Cosmopolitan and Freehold, with a total of 11 holes completed (2,948m) (Table 4).

**Table 4:** Hillgrove Drilling completed in Q3 FY22 (assays pending)

| Location     | Hole Type | Holes Completed | Total Metres Drilled |
|--------------|-----------|-----------------|----------------------|
| Sunlight     | DD        | 4               | 1,256                |
| Eleanora     | DD        | 2               | 708                  |
| Freehold     | DD        | 4               | 362                  |
| Cosmopolitan | DD        | 1               | 623                  |
| <b>Total</b> |           | <b>11</b>       | <b>2,948</b>         |

Red River received assays for four holes at Eleanora-Garibaldi. The high-grade intercepts within broader mineralised zones are encouraging and continue to build confidence to transition Hillgrove from a historical narrow vein project into a larger-scale gold operation (ASX Announcement 03 February 2022).

Main Lode intervals of high-grade gold and antimony mineralisation included:

- 2m @ 2.7 g/t Au and 0.9% Sb from 131.0m downhole (ELG161)
- 1m @ 2.9 g/t Au and 0.4% Sb from 58.0m down hole (ELG162)
- 1.2m @ 0.8 g/t Au and 0.2% Sb from 39.0m down hole (ELG163)
- 3.5m @ 2.8 g/t Au and 1.0% Sb from 33.5m down hole (ELG164)

Central Lode intervals of high-grade gold and antimony mineralisation included:

- 0.7m @ 6.9 g/t Au and 7.0% Sb from 29.0m downhole (ELG163)
- 6.5m @ 4.6 g/t Au and 1.9% Sb from 24.5m down hole (ELG164).

The East Lode intervals of high-grade gold and antimony mineralisation included:

- 1m @ 3.6 g/t Au from 56m downhole (ELG161)
- 2m @ 3.5 g/t Au and 0.5% Sb from 14.0m downhole (ELG163).

In hole ELG164, the merging of the Main and Central lodes forms a total high-grade mineralised zone of

- 14.5m @ 3.0 g/t Au and 1.1% Sb from 22.5m downhole (ELG164).

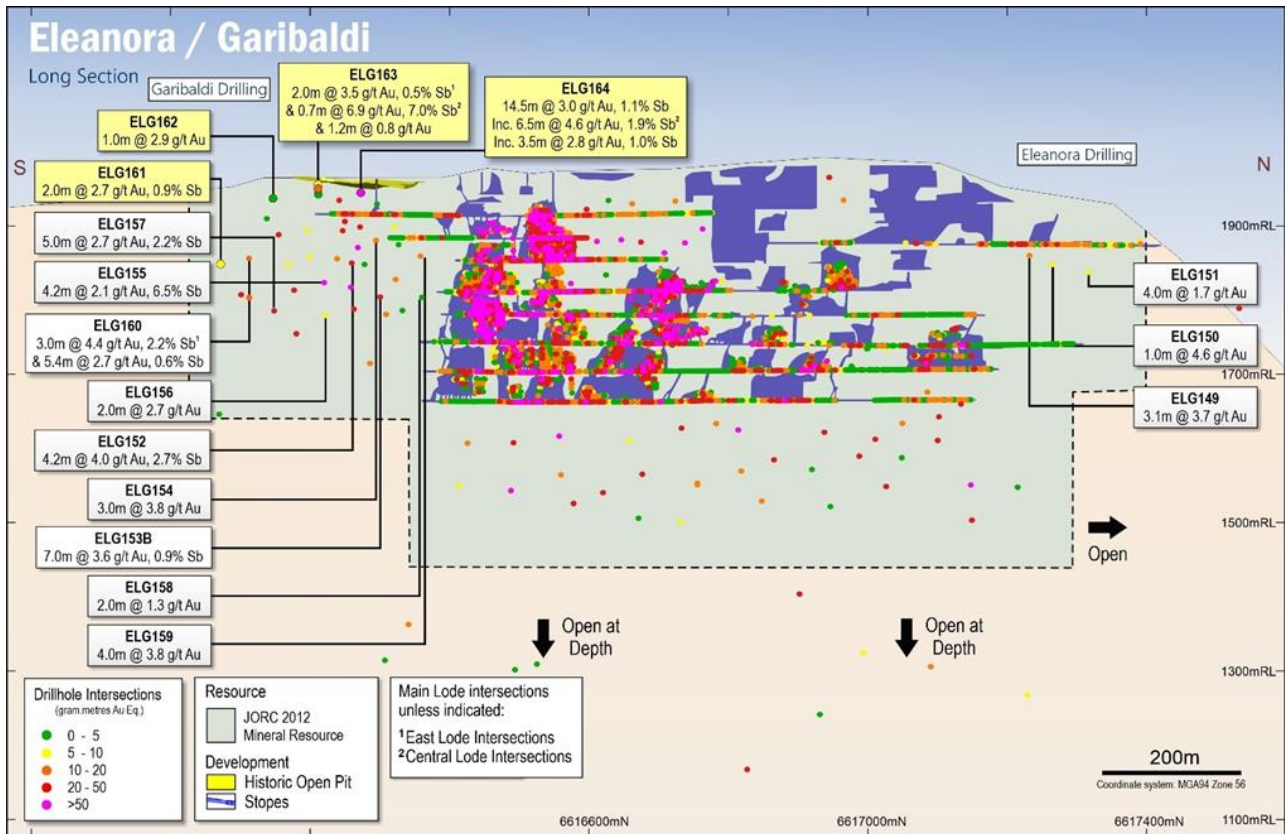
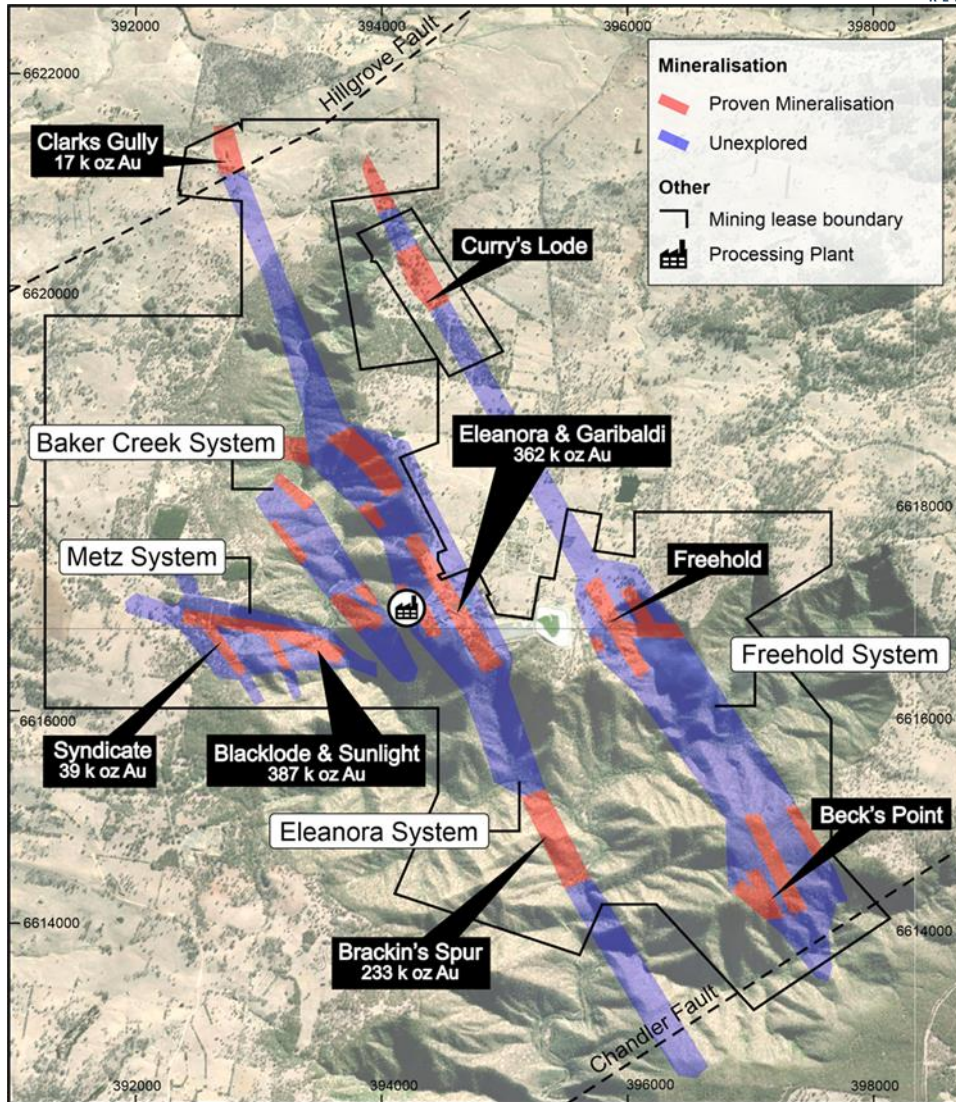


Figure 14: Assay results from latest Eleanora-Garibaldi program.



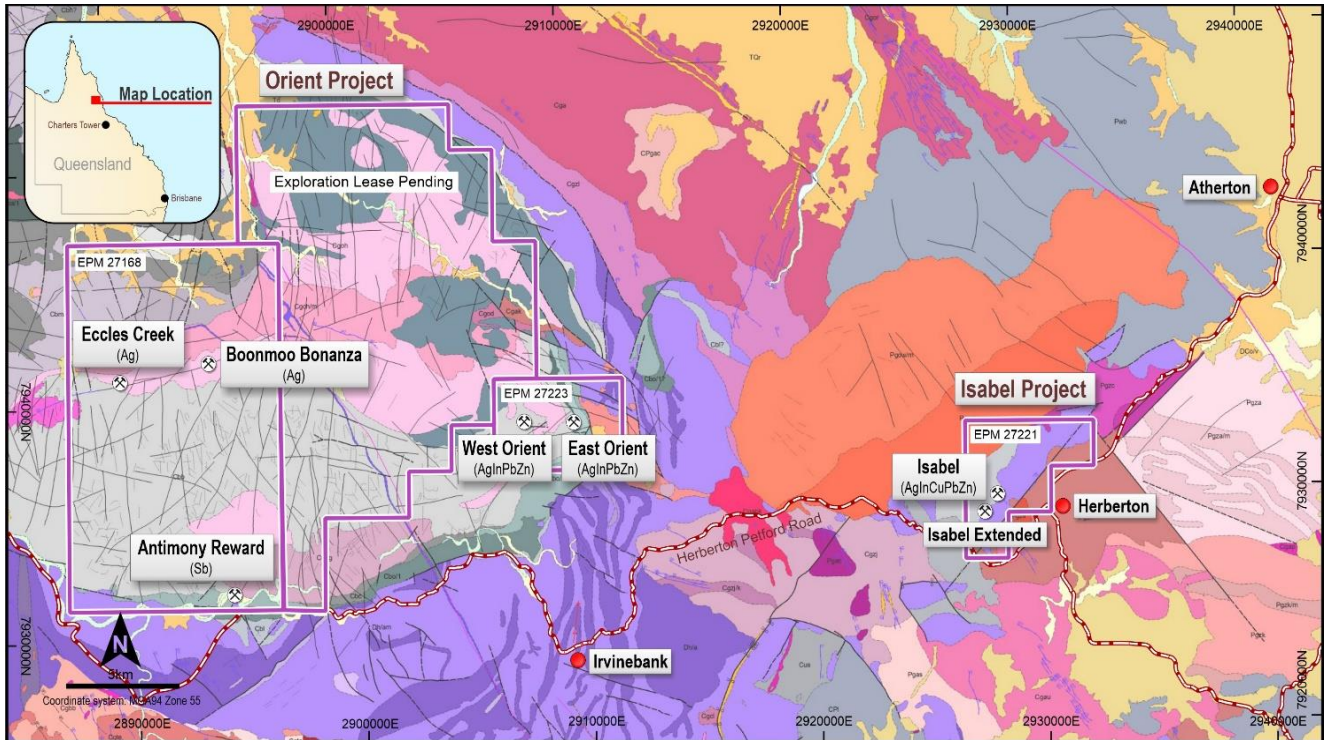


**Figure 15:** Hillgrove Resources and mineralisation corridors

#### 4. HERBERTON SILVER-INDIUM PROJECT (QUEENSLAND)

Red River holds the exciting high-grade polymetallic Herberton Silver-Indium Project in Northern Queensland. The Project contains the highest-grade known indium deposits in Australia (Isabel and West Orient) and a high priority bulk tonnage epithermal silver-lead-zinc exploration target has been defined at East Orient (Figure 16).

Red River intends to undertake a drilling program at Herberton once resources are available.



**Figure 16:** Herberton Silver-Indium Project

## 5. CORPORATE

- Net revenue during the quarter was \$23.5 million, with Thalanga Operations contributing \$23.2 million and Hillgrove Gold Mine contributing \$0.3 million.
- Cash at bank at the end of the quarter was \$10.1 million, a decrease of \$3.1 million as compared to the prior quarter. This was after investing \$3.3 million at Thalanga and Hillgrove, which included mine development (\$1.3m), project capital (\$0.5m) and exploration activities (\$1.5m), and repaying US\$2.0 million (A\$2.7 million) on the Company's working capital facility (refer item 5.1).

### 5.1. Thalanga Operations Financial Performance

Thalanga Operations financial performance is summarised in the table below:

**Table 5:** Thalanga Operations Financial Summary and Indicative Cash Costs for Q3 FY2022 (Quarter ended 31 March 2022)

|   | Units              | Q3 FY21 | Q4 FY21 | Q1 FY22 | Q2 FY22 | Q3 FY22 |
|---|--------------------|---------|---------|---------|---------|---------|
| Net Revenue <sup>1</sup>  | \$m                | 23.2    | 27.1    | 34.6    | 23.7    | 23.2    |
| EBITDA  | \$m                | 6.8     | (0.1)   | 15.1    | 7.3     | 7.8     |
| Underlying EBITDA <sup>2</sup>  | \$m                | 7.7     | 11.7    | 15.1    | 7.3     | 7.8     |
| <b>Indicative Cash Costs</b>  |                    |         |         |         |         |         |
| Payable zinc metal produced   | Mlb                | 7.0     | 6.2     | 7.7     | 4.5     | 5.0     |
| Indicative C1 Cash Cost   | US\$/lb payable Zn | 0.16    | (0.07)  | (0.37)  | 0.58    | 0.68    |
| Indicative C2 Cost  | US\$/lb payable Zn | 0.57    | 0.51    | 0.15    | 1.20    | 1.35    |
| Indicative C3 Cost  | US\$/lb payable Zn | 0.84    | 0.80    | 0.34    | 1.41    | 1.56    |
| All numbers and data are rounded. Discrepancies in totals may exist due to rounding.<br>Payable metal is derived from concentrate offtake agreements.<br>C1 cash cost includes actual cash costs plus notional costs (concentrate logistics and realisation costs)<br>C1 cash cost includes credits for copper, lead, gold and silver notionally priced at for the period (Q3 FY22: copper US\$4.56/lb, lead US\$1.06/lb, gold US\$1,891/oz and silver US\$24.32/oz)<br>1 Net Revenue is Gross Revenue less treatment charges, refining fees and penalties relating to concentrate sold<br>2 Underlying EBITDA for Q3 to Q4 FY21 excludes the \$15.1 million royalty dispute provision provided in FY21 |                    |         |         |         |         |         |

Thalanga Operations net revenue during the quarter was \$23.2 million, with \$11.3 million from sale of zinc in zinc concentrate, \$1.7 million from the sale of lead in lead concentrate, \$8.0 million from sale of copper in copper concentrate and \$2.2 million from sale of payable precious metals (gold and silver) contained in copper and lead concentrates.

Thalanga Operations quarterly EBITDA (unaudited) was \$7.8 million, an increase of \$0.5 million over the prior quarter. Compared to the previous quarter:

- Net revenue was \$0.5 million lower with lower metal sold (\$1.1 million) and higher treatment charges (\$0.4 million) being partially offset by higher realised prices (\$1.1 million). Zinc and lead treatment charges increased steadily over the quarter, with each increasing by approximately 50% in A\$ terms.
- Realisation expenses were \$1.0 million lower primarily due to savings on sea freight with zinc concentrates being delivered domestically during the quarter.
- Operating costs were \$0.9 million higher due to the cost of mining and treating higher ore tonnes, partially offset by improved cost efficiencies
- Stock movements were \$0.7 million lower due to higher closing concentrate stocks in March as compared to December.

**C1 Cash costs** were higher than the previous quarter due to the impact of grade on the value of by-product credits per pound of payable zinc metal.

**Working Capital Facility** - During the December 2021 quarter Red River drew US\$8.0 million from the Company's US\$15 million working capital facility. US\$2.0 million was repaid at the end of the March 2022 quarter, with a further US\$2 million to be repaid at the end of each quarter in the 2022 calendar year (ASX Announcement 20 December 2021).

## 5.2. Hillgrove Gold Mine Financial Performance

Red River invested \$0.1 million in plant capital and \$0.8 million in exploration activities. On an unaudited basis, Hillgrove Mine's EBITDA for the quarter was \$(2.8) million.



**CAMERON BODLEY**

**Company Secretary**

Red River Resources Limited

End.

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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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## Appendix A – Tenement Interests

### 1. QUEENSLAND

As at 31 March 2022, Red River had an interest in the following exploration permit minerals (EPM) and mining leases (ML) in Queensland.

**Table 6:** 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%                |
| Herberton           | Queensland | EPM 27168 | 100%                |
| Herberton           | Queensland | EPM 27221 | 100%                |
| Herberton           | Queensland | EPM 27223 | 100%                |
| Thalanga Operations | Queensland | EPM 27357 | 100%                |
| Thalanga Operations | Queensland | EPM 27520 | 100%                |

**Table 7:** 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 March 2022, 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 8:** 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 9:** 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 10: 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 11: 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 12: 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.

## Thalanga 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 Liontown Project (Liontown and Liontown East) and from ongoing metallurgical data generated from operational activities at Thalanga (processing West 45 and Far West). The Liontown Project is related to and of a similar style of mineralisation to the Thalanga Deposit (West 45 and Far West) 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                   | 65%                      | 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 the Liontown Project. 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:

$$\text{Zn Eq.} = (\text{Zn}\% * 1.0) + (\text{Cu}\% * 3.3) + (\text{Pb}\% * 0.9) + (\text{Au ppm} * 2.0) + (\text{Ag ppm} * 0.025)$$

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

| Metal                   | Copper | Lead | Zinc | Gold | Silver |
|-------------------------|--------|------|------|------|--------|
| Metal Equivalent Factor | 3.3    | 0.9  | 1.0  | 2.0  | 0.025  |

**END**