



## Thalanga Zinc Project – April Progress Update

Near-term zinc producer Red River Resources Limited (ASX: RVR) (“Red River” or the “Company”) is pleased to provide an update on the ongoing progress at its Thalanga Zinc Project in Queensland, where it expects to restart commercial production in Q4 2017.

### Plant & Infrastructure Refurbishment

Thalanga Plant and Site rehabilitation and restart activities continued during April, with the following undertaken:

- Process water tank repairs completed;
- Power supply to return airway rise and transformer installed;
- Civil work around mill feed conveyor (CV-05) completed and structure re-aligned; and
- Refurbishment of structure around jaw crusher completed.

### Operational Readiness

A number of items which are preparatory in nature were actioned during April. These included:

- Work commenced on the stripping and refurbishment of the Larox concentrate filter press;
- Reagent tanks and lines cleaned, cleared and re-connected;
- Area process training commenced; and
- Mine to mill protocols established and Run of Mine (“ROM”) pad prepared accordingly.

### Mining

Development and mining activities at West 45 recommenced during the period, nearly 5 years after the previous operator ceased activities, with the following undertaken:

- PYBAR commenced mining & development activities at West 45 during the period, with a total of 99.4 metres of development completed by the end of April;
- The first ore from West 45 was delivered to the Thalanga ROM pad during the period, with approximately 2,000 tonnes delivered by end of April; and
- Two geotechnical drill holes (total of 194 m) were completed.

## 1. Thalanga Plant and Site

The Thalanga Plant is designed for a nominal throughput of 650ktpa, using standard industry technology to produce saleable copper, lead and zinc concentrates via flotation. The plant flowsheet is summarised as:

- Crushing circuit (three-stage crushing circuit);
- Milling circuit (primary (x1) and secondary ball mill (x2) circuit);
- Concentrate flotation circuit (differential copper, lead and zinc flotation circuits);
- Concentrate thickening and filtration;
- Regrind circuit;
- Concentrate storage, blending and transport; and
- Sub-aqueous disposal of tailings to fully permitted Tailings Storage Facility (“TSF”) with sufficient existing capacity for currently planned operations.

The Thalanga Plant is fully permitted, and Red River commenced early stage restart activities in Q4 CY2016. The Plant is forecast to restart commercial production in Q4 CY2017.

Figure 1 Thalanga Plant and Processing Infrastructure





Ore is transported to the ROM Pad, where it is stockpiled and gradually fed into the concentrator for processing. The Thalanga ROM Pad contains a number of stockpiles from the Vomacka Pit (mined by a previous owner) dating from March 2012, when the Thalanga Mine was placed on care & maintenance. Red River is reviewing potential options to monetise a number of these stockpiles.

The first ore from West 45 was delivered to the ROM Pad during April, with approximately 2,000 tonnes delivered by the end of April. West 45 ore will continue to be delivered to the ROM pad ahead of the restart of the Thalanga mill in Q4 CY2017.

Figure 2 West 45 ore on Thalanga ROM Pad



Figure 3 West 45 ore being delivered to Thalanga ROM Pad



### 1.1. Plant & Infrastructure Refurbishment

Significant progress was made during the period, as the rehabilitation and restart activities at the Thalanga Plant and Site continued. Major items actioned during the period included:

- Work commenced on stripping and refurbishment of the Larox concentrate filter press;
- Mill 3 feed spout and feedchute trolley was refurbished and replaced;
- Process water tank repairs completed;
- Transformers on site refurbished and installed;
- HV Audit commenced; and
- All Pressure vessels tested and recommissioned.

At the end of April, approximately 30% of the outstanding tasks to complete the refurbishment of the plant and infrastructure had been completed, and the plant is on schedule to restart commercial production in Q4 2017.



## 1.2. Operational Readiness

The Thalanga site team continued to focus on increasing the operational readiness of Thalanga during the period. Key work actioned included:

- Cleaning of the Thalanga plant continued;
- Repair and replacement of the jaw crusher ladderway and handrails were completed;
- ROM Pad was cleaned up and West 45 waste rock dump area was prepared and levelled;
- Lime silo cleaned out;
- Reagent lines cleaned and repaired;
- Area process training modules completed and being reviewed; and
- Operators being interviewed and appointed.

Figure 4 Mill 3 Replacement of refurbished feed spout and feedchute trolley



Figure 5 Primary Jaw Crusher – Handrail repair and replacement





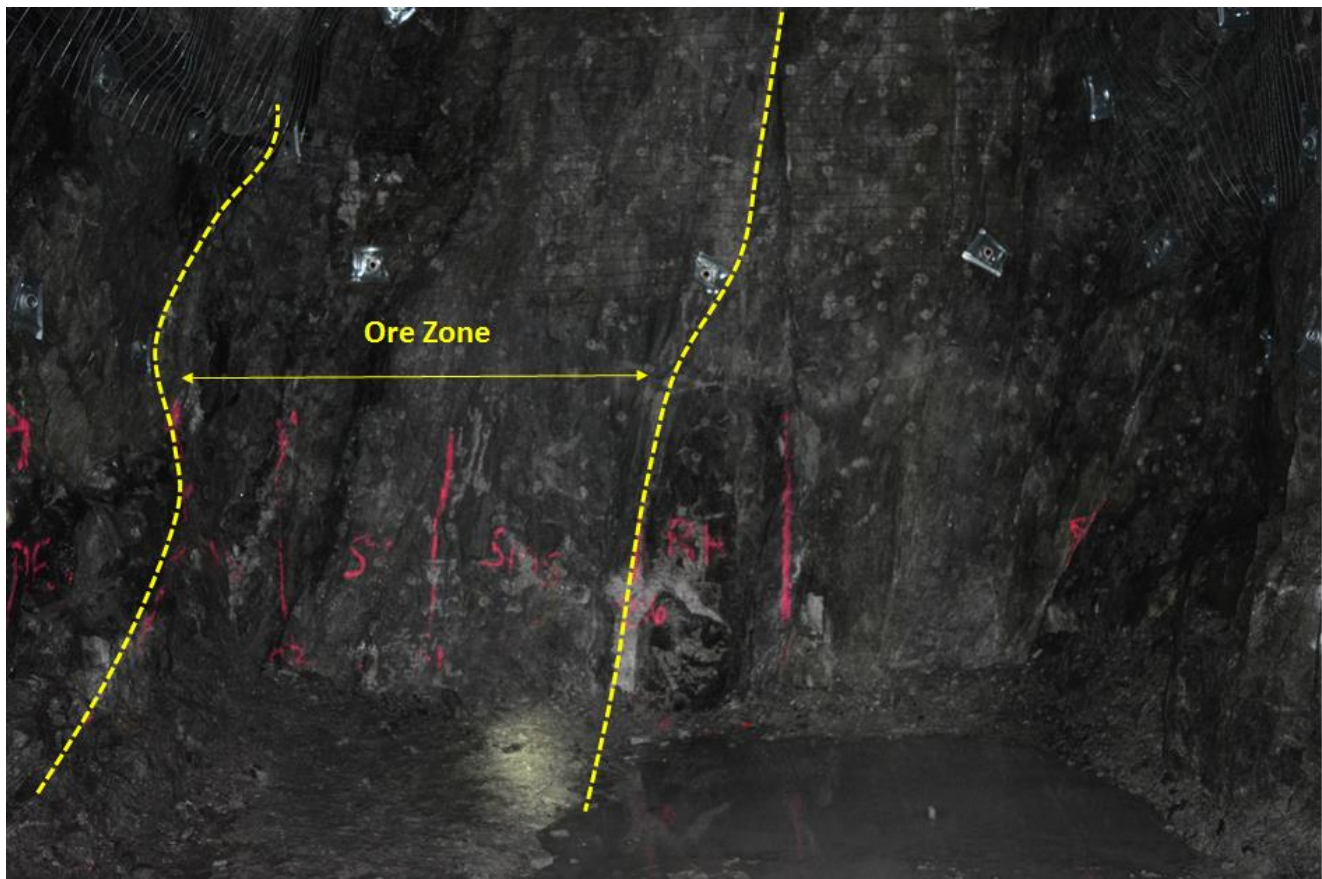
## 2. West 45 Mining & Development Activities

The West 45 deposit is located 1.7km west of the Thalanga Plant, and is ~1.4km by unsealed road from the portal to the ROM ore pad. Development and mining activities at West 45 recommenced during the period, nearly 5 years after the previous operator ceased activities.

During the period:

- First development blast was undertaken on April 14;
- 99.4m of development was completed, with the decline development (38.3m) taking priority;
- Approximately 2,000 tonnes of development ore was delivered to the ROM pad, primarily from Level 956 Eastern and Western Ore Drives;
- Geotechnical drilling and assessment was completed for the RAR (return air rise) and Second Egress raise. The raise borer was mobilised to site by the end of the period and raise boring activities commenced at the start of May; and
- Licence to Store Explosives on site was approved by the Department of Natural Resources and Mines (DNRM) and the magazines were installed and commissioned.

Figure 6 Development face in Level 956 EOD (27 April 2017)



During the period, the Return Airway Raise (RAR) Pad was blasted, then cleaned by an excavator to bucket refusal. Concrete footings were then poured for the diesel generator set and the raise bore. The raise bore was mobilised to site and commenced drilling at the start of May.

Figure 7 Return Airway Raise (RAR) pad – preparation, power supply and transformer installation, mobilisation and drilling





## Thalanga Zinc Project Background

Red River released a Restart Study (the internal study prepared by Red River to assess the potential restart of the Thalanga Zinc Project) in November 2015, which demonstrated the highly attractive nature of the Project. The Project has a low operating cost, low pre-production capital cost (\$17.2 million), and a short timeline to production (six months).

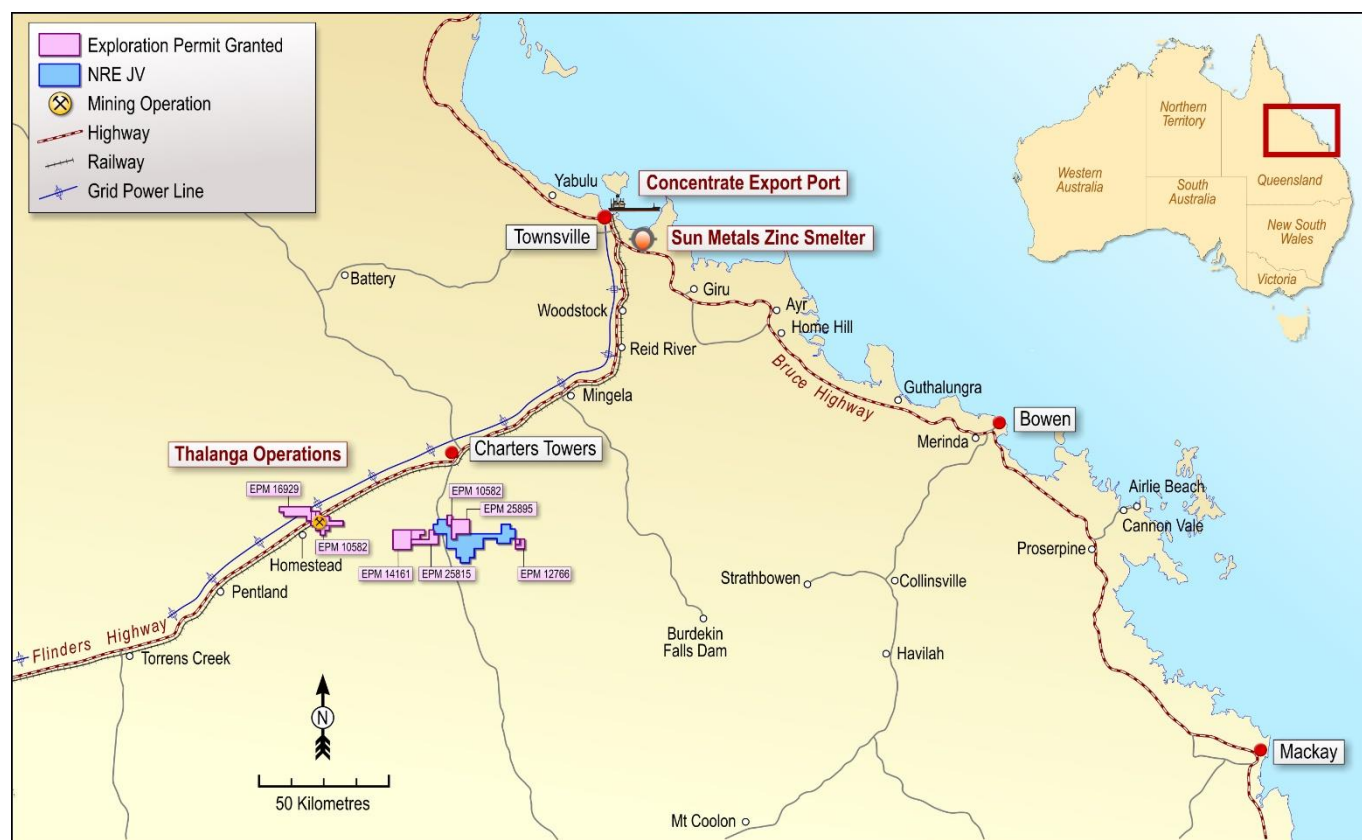
Annual average production is 21,400 tonnes of zinc, 3,600 tonnes of copper, 5,000 tonnes of lead, 2,000 ounces of gold and 370,000 ounces of silver in concentrate over an initial mine life of five years, and there is outstanding extension potential.

Please refer to ASX release dated 12 November 2015 for further details on the Thalanga Zinc Project Restart Study. Red River confirms that all material assumptions underpinning the production target in the ASX release dated 12 November 2015 continue to apply and have not materially changed.

The Thalanga Zinc Project Restart Study is based on production from three deposits – West 45, Far West and Waterloo. The Thalanga Zinc Project Restart Study is based on low level technical and economic assessments and there is insufficient data to support the estimation of Ore Reserves at Far West and Waterloo, provide assurance of an economic development case at this stage, or provide certainty that the results from the Thalanga Zinc Project Restart Study will be realised.

Further, as the production target that forms the basis of the Thalanga Zinc Project Restart Study includes Mineral Resources that are in the Inferred Category and there is a low level of geological confidence associated with Inferred Mineral Resources, there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production target itself will be realised.

Figure 8 Thalanga Zinc Project Location



On behalf of the Board,

**Mel Palancian**  
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Red River Resources Limited

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