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# **Thalanga Zinc Project – March Progress Update**

Zinc developer 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 2H CY2017.

Site head count has increased to more than 50 personnel as restart activities continue and underground mining contractor PYBAR mobilises equipment and personnel to site.

### **Thalanga Plant and Site**

- Thalanga Plant and Site refurbishment and restart activities continued during March, with the following undertaken:
  - Thickener refurbishment completed;
  - Pole-top electrical transformers overhauled, and three installed;
  - Loader secured for start-up feeding of crusher;
  - Initial 12-month supply of balls for ball mills secured;
  - Flotation circuit reagent tanks were cleaned, descaled and leak tested; and
  - Crusher oil and grease system serviced.

#### West 45 underground mine

- PYBAR commenced rehabilitation work in West 45 decline;
- Completion of West 45 powerline, installation of West 45 portal transformer, 11kV power cable and associated switch gear installed in West 45 West 45 underground mine now fully energised;
- Geotechnical hole completed at RAR (return air rise) location and RAR pad drilled and blasted in preparation for arrival of raise boring machine (currently planning the foundation and awaiting geotechnical report).

# **Thalanga Operations**

• The DNRM (Department of Natural Resources and Mines) approved the reduction of the rehabilitation bond for Thalanga Operations from \$9.037m to \$8.164m, with the excess cash balance of \$0.872m being released and made available to the Company.

#### **Concentrate Offtake Agreement**

• Negotiations are ongoing with a number of potential offtake partners. Red River is aware of the strong market for concentrates and is seeking to maximise outcomes for shareholders.

Operations were prepared at site and most personnel were evacuated as a precaution in case of adverse weather conditions resulting from Cyclone Debbie based on initial Bureau of Meteorology Tropical Cyclone Forecast Track Maps. In the event, Cyclone Debbie passed significantly south of Thalanga, and site activities recommenced shortly thereafter, with no adverse weather conditions at site.



# 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 2H CY2017.

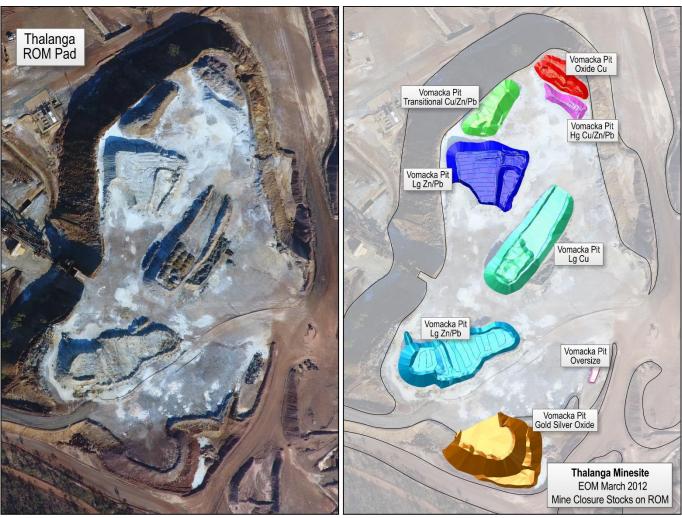
Figure 1 Thalanga Plant and Processing Infrastructure





Ore is transported to the Run of Mine ("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.

Figure 2 Thalanga ROM Pad



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

- Thickener refurbishment completed;
- Pole top electrical transformers overhauled, and three installed;
- Loader secured for start-up feeding of crusher;
- Initial 12-month supply of balls for ball mills secured;
- Plant cleaning continues flotation circuit reagent tanks cleaned, descaled and leak tested; and
- Crusher oil and grease system serviced.



Figure 3 Replacement of shaft in main thickener



Figure 4 Installed refurbished thickener rakes





Figure 5 Installation of concrete power pole



Figure 6 Installation of pole top transformer





#### 2. West 45

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 run of mine (ROM) ore pad. The box-cut for the portal was commenced in August 2011 by Kagara and underground development commenced in September 2011. Underground operations ceased in March 2012 when Kagara was placed into administration.

The decline was developed 552m (at a 1:7 gradient) down to its current position at the 941RL, approximately 100m below surface. A cross-cut into the top of the orebody was developed and 48m of ore development completed. About 2,835t of ore was extracted and processed by Kagara through the Thalanga Plant prior to operations being placed on care & maintenance. The box-cut and portal collar have been mined and supported to a high standard. No serious defects are evident. Ground conditions are considered to be good.

During March, the West 45 powerline was completed, a transformer was installed at the portal, and an 11kV power cable and associated switchgear were installed in the West 45 underground mine. West 45 is now fully energised, allowing mining activities to commence.

PYBAR continued to mobilise equipment and personnel to the site, and commenced rehabilitation activities in the West 45 decline, in preparation for restart of mining and development activities.

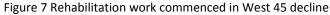






Figure 8 West 45 Portal Transformer



A 97m deep geotechnical hole (foreground) was completed at the return air rise (RAR) location, and the pad was drilled (background) and subsequently blasted in preparation for the arrival of the raise boring machine.

Figure 9 RAR Pad Completion Activities





## 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.

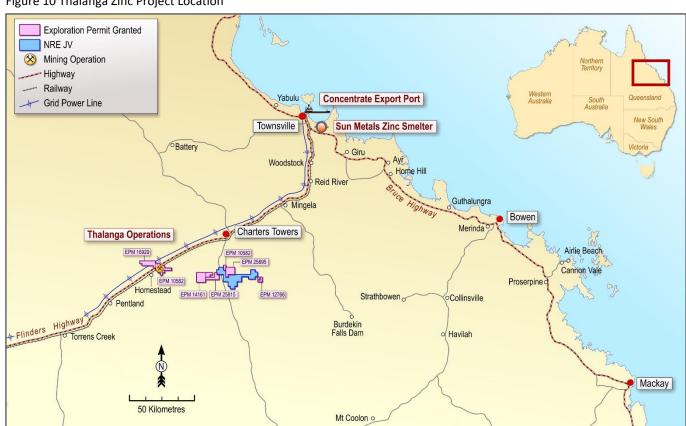


Figure 10 Thalanga Zinc Project Location



On behalf of the Board,

Mel Palancian Managing Director

**Red River Resources Limited** 

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