

#### **Coziron Resources Limited**

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The Company Announcements Office ASX Limited Via E Lodgement

29 April 2016

# Quarterly Activities Report to 31<sup>st</sup> MARCH 2016

#### **HIGHLIGHTS**

#### Yarraloola Project – West Pilbara

#### Robe Mesa Deposit

- Independently calculated JORC-compliant resource review completed with an upgrade from Inferred to Indicated and Inferred.
- Total Resource of 84.5 Mt now reports as 65.7Mt of Indicated Resource and 18.8 Mt of Inferred Resource @ 53.8% Fe (equivalent calcined iron, Fe<sub>Ca</sub> of 60.2%) + 8.3% SiO<sub>2</sub> + 3.4% Al<sub>2</sub>O<sub>3</sub> + 0.04% P + 10.6% LOI above a cut-off grade of 50% Fe (Fe<sub>Ca</sub>>55%).
- Resource includes a higher grade component of 19.5 Mt @ Fe>55% of Indicated Resource + 5.2 Mt of Inferred Resource for a Total Resource of 24.7 Mt @ 56% Fe (equivalent calcined iron, Fe<sub>Ca</sub> of 62.7%) + 5.9% SiO<sub>2</sub> + 2.7% Al<sub>2</sub>O<sub>3</sub> + 0.04% P + 10.7% LOI.
- Final results increased the total tonnage in the resource model by 16% and converted 78% of the Inferred Resource to Indicated Resource.
- The block model for the resource calculations provides indications of where there are potential extensions to the Robe Mesa deposit.
- The results of the first targeted drilling programme provides the Company with confidence for follow up exploration success on additional CID targets that exist on the Company's Yarraloola project.

#### Ashburton Magnetite Prospect

- All 1m XRF extended iron-ore suite assays were received from the 16 inclined (-60°) RCholes, each to a depth of 198m, for a total of 3168m.

- All RC holes contain intervals with high magnetic susceptibility and elevated Fe-contents. Maximum down-hole length is 156m @ 28.3% Fe in YAR100, which ended in mineralisation.
- Other broad down-hole intercepts include 53m @ 24.6% Fe and 63m@ 26.3% Fe in YAR099, 80m @ 31.1% Fe in YAR100 and 62m @ 34.5% Fe in YAR102.
- EIS co-funded diamond programme that consisted of 3 inclined (-60°) holes, ranging from 510m to 530min depth, for a total of 1560m was completed and all holes contain intercepts with magnetite mineralisation.
- Diamond drill core confirms an "Algoma-setting" as the magnetite mineralisation is associated with felsic and rhyolitic volcanics in an oceanic basin.
- RC and diamond drilling also shows shallow levels of (<30m) weathering, no asbestiform minerals and low sulphide content.

# **Project Summaries**

## Yarraloola Project – West Pilbara

## Background

The Yarraloola tenements cover an area of 853 km<sup>2</sup> in the western part of the Hamersley Basin and adjacent parts of the Ashburton Trough in the West Pilbara. The project has a basement of Archaean and Proterozoic-aged rocks that are in parts overlain by younger sediments of the Carnarvon Basin. All the sequences are prospective for iron ore mineralisation. In the east, Archaean-age sediments in the Hamersley Basin include iron-rich members of the Marra Mamba, Brockman and Boolgeeda Iron Formations. In the central and western parts, Proterozoic-age metasediments of the Ashburton Trough have interbedded iron formation. In the south, the Coziron tenements are transected by the Robe River pisolitic iron-stone. The pisolitic iron-stones are basin margin sediments of the Carnarvon Basin and currently support large-scale mining operations at Warramboo, Mesa A and Mesa J (Fig 1).

In addition to prospectivity for iron-ore, the Yarraloola tenements are well serviced by established infrastructure that includes bitumen roads and gas-pipelines and these provide opportunities to lower the cost of development for a new discovery. There are also proposals for additional facilities to be developed within the region. BC Iron Ltd has approval for a new haul-road and port at Cape Preston East, while the API joint-venture is preparing a feasibility study for a railway through the West Pilbara to a port at Anketell Point. Both of these planned infrastructure projects will traverse the Coziron tenements and will improve the economics of any iron-ore deposits discovered within the project area.

Coziron currently has exploration focussed on two prospects.

- 1. The Robe Mesa Deposit on E08/1060 and E08/1686 which contains two intervals of pisolitic ironstone (CID) representing recently deposited material from the Carnarvon Basin (Fig 1).
- 2. Outcrop and subcrop of magnetite-bearing schists in the Proterozoic-aged, Ashburton Trough on tenements E08/1686 and E08/1826.

## Robe Mesa

The Robe Mesa became a priority prospect for pisolitic iron-stone after mapping and sampling highlighted the aerial extent. A total of 78 RC drill-holes completed during 2014 and 2015



intersected an upper and lower interval of pisolitic iron-stone with Fe>50%. The geology and geochemistry from the drilling has been used to revise the independently calculated Inferred Resource which was announced in detail on the ASX on 7 December 2015 and is summarised in the following tables.

Robe Mesa Deposit – Updated Mineral Resource Estimate from December 2015 – reported above a **Fe cut-off grade of 50%**.

Category	Mt	Fe%	SiO2%	Al2O3%	TiO2%	LOI%	Р%	S%	Fe <sub>ca</sub> %
Inferred	84.5	53.8	8.3	3.4	0.14	10.6	0.04	0.02	60.2

Robe Mesa Deposit – Updated Mineral Resource Estimate from December 2015 – reported above a **Fe cut-off grade of 55%**.

Category	Mt	Fe%	SiO₂%	Al <sub>2</sub> O <sub>3</sub> %	TiO2%	LOI%	Р%	<b>S%</b>	Fe <sub>ca</sub> %
Inferred	24.6	56.0	5.9	2.7	0.1	10.7	0.04	0.02	62.7

The Inferred Resource on the Robe Mesa provided a well-defined opportunity for further work to increase the resource confidence and examine potential extensions to the ore-system.

## Ashburton

The Ashburton prospect is a 12 km long by 800 m wide area hosting high-order magnetic anomalies associated with poorly outcropping, Proterozoic schists that are only partly exposed beneath a capping of sands and conglomerates from the Carnarvon Basin (Fig 1). RC and diamond drilling show that the magnetite-rich metasediments are hosted by intermediate and rhyolitic volcanics. The implication is that rather than an outlier of the Hamersley Basin, the Ashburton magnetic anomalies appear to be the expression of mineralisation associated with a deeper water oceanic basin and volcanism and represent an Algoma-style setting.

The mineralisation in the Ashburton also has a suite of characteristics that may be favourable for larger-scale magnetite recovery, including the following.

- 1. The transition from weathered to fresh rock appears to be only 20-30m below the surface.
- 2. No evidence of blue asbestos (crocidolite) in the system.
- 3. Grainsize that is coarser than material from the adjacent Hamersley Basin iron formations.
- 4. Generally low phosphorous and sulphur contents.
- 5. Mass yields from Davis Tube that were in excess of 30%
- 6. High rates of RC drilling and short mill times for the Davis Tube magnetite recovery that suggest the host-rocks are relatively soft.

## Activities and Results - Robe Mesa Deposit

During the quarter, the company received additional assays from a representative sub-suite of the samples from the RC drilling on the Robe Mesa Deposit (Fig 2, 3, 4), along with reference standards that had been submitted to SGS Laboratories for umpire analysis. Optiro Pty Ltd added the results to the model of the deposit and processed the data using Surpac. This subdivided the previously reported Total Inferred Resource into Indicated and Inferred Resource categories which are reported in the following tables. Detailed parameters were reported to the ASX on the 8 February 2016.



Robe Mesa – Updated Mineral Resource Estimate at January 2016 after umpire laboratory analysis – reported above a **Fe (iron) cut-off grade of 50%**.

Category	Mt	Fe%	SiO₂%	Al <sub>2</sub> O <sub>3</sub> %	TiO₂%	LOI%	Р%	<b>S%</b>	Fe <sub>ca</sub> %
Indicated	65.7	53.8	8.3	3.4	0.14	10.6	0.04	0.02	60.2
Inferred	18.8	53.8	8.2	3.4	0.14	10.7	0.05	0.02	60.3
Total	84.5	53.8	8.3	3.4	0.14	10.6	0.04	0.02	60.2

Robe Mesa – Updated Mineral Resource Estimate at January 2016 – after umpire laboratory analysis - reported above a Fe cut-off grade of 55%.

Category	Mt	Fe%	SiO₂%	Al <sub>2</sub> O <sub>3</sub> %	TiO₂%	LOI%	Р%	S%	Fe <sub>ca</sub> %
Indicated	19.5	56.0	6.0	2.7	0.10	10.7	0.04	0.02	62.7
Inferred	5.2	56.0	5.8	2.8	0.10	10.7	0.05	0.02	62.7
Total	24.7	56.0	5.9	2.7	0.10	10.7	0.04	0.02	62.7

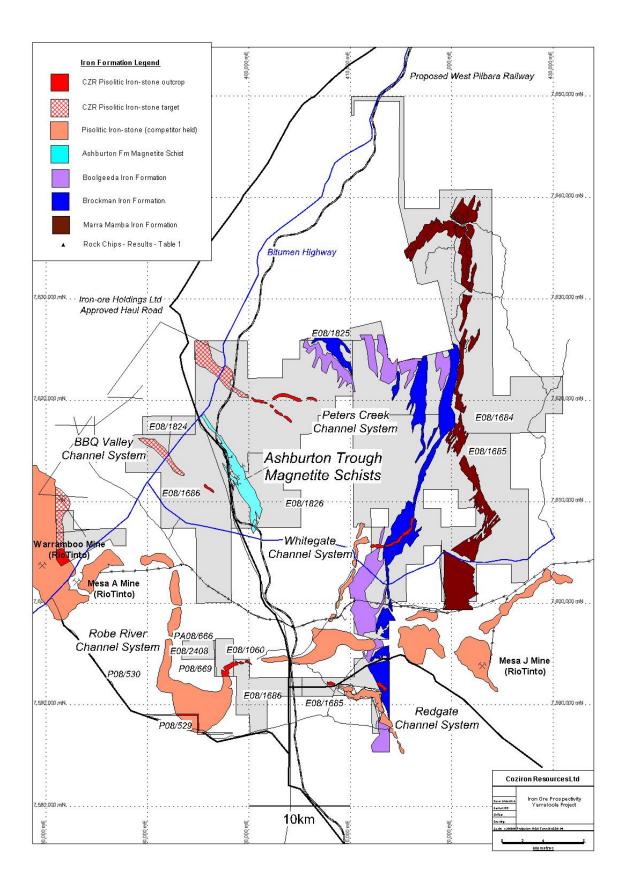
The final outcome of the 2015 RC-drilling programme resulted in an increase of the total tonnage in the resource estimate by about 16% and approximately 78% of the Inferred Resource being upgraded to an Indicated Resource. The higher grade material with Fe > 55% showed an increase in total tonnage from the recent RC-drilling of about 25% with about 80% of the higher grade being classified in the Indicated category.

The block model that has been produced from the Optiro study has identified areas of mapped mineralisation that is currently outside of the resource model and cross-sections where sub-surface zones of mineralisation are not closed off by the drilling and areas reported as *Inferred Resource* that can potentially be upgraded to *Indicated Resource* by infill drilling.

## Activities – Ashburton Magnetite Prospect

Following the receipt of all the geochemical data which was reported in the previous quarter, a selection of RC samples from intercepts in YAR098, YAR099, YAR100, YAR101, YAR102 and YAR103 with magnetite mineralisation have been submitted to Bureau Veritas for processing by Davis Tube (Fig 5). In addition, magnetite intercepts from two of the diamond drill-holes (YARDDH002 and YARDDH003) have been sampled for a mill-recovery test-work programme. Results for these programmes will be reported when they are available.





*Fig 1.* Distribution of banded iron-formations and prospects for CID mineralisation on the Yarraloola Iron-ore project in the West Pilbara highlighting the Robe Mesa deposit on E08/1060.



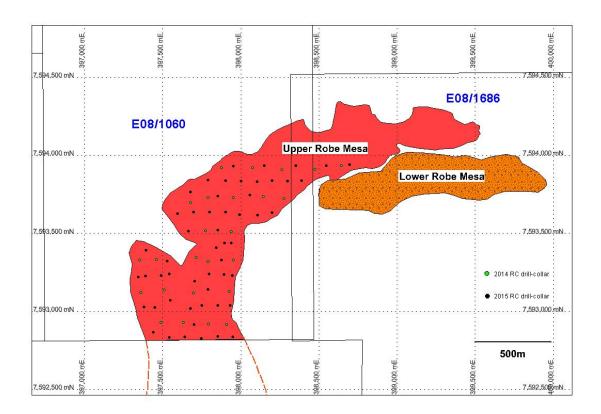


Fig 2. Location of the 2014 and 2015 drill-sites on the Robe Mesa within the tenements E08/1060 and E08/1686 from which the cross-sections at 7593300N and 7593950N as Figs 7 and 8 are updated and the Inferred Resource has been updated.

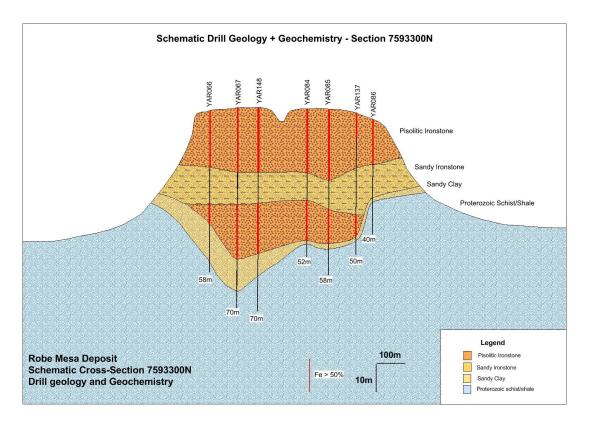


Fig 3. Geological section at 7593300N (from Fig 2) showing red down-hole intervals for drill holes with pisolitic ironstone reporting Fe>50% (ie calcined iron or  $Fe_{ca}>55\%$ ).



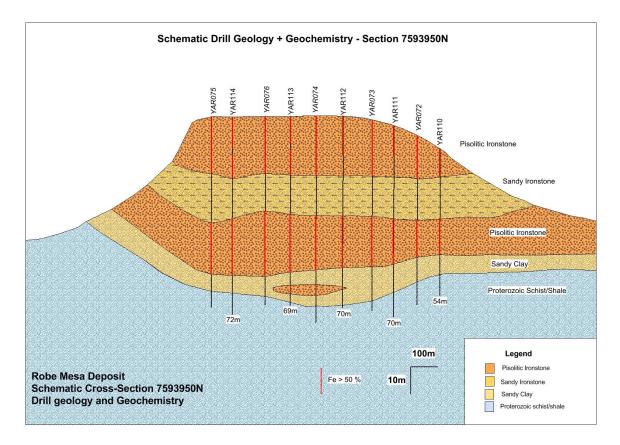


Fig 4. Geological section at 7593950N (from Fig 2) showing red down-hole intervals drill holes with pisolitic ironstone reporting Fe>50% (ie calcined iron or Fe<sub>ca</sub>>55%).



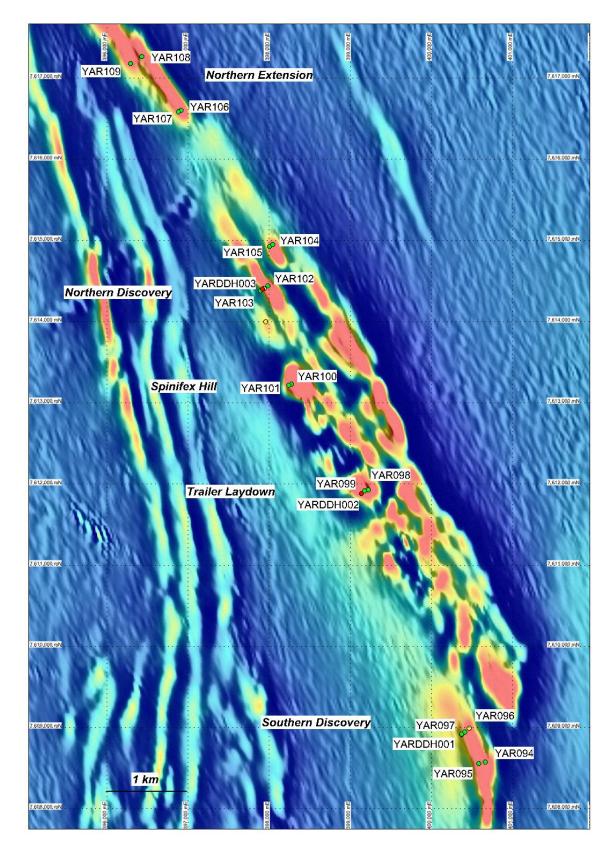


Fig 5. RC and diamond drill-collars for the magnetite-bearing sequence in the Ashburton Trough overlain on the first vertical derivative (1VD) magnetic imagery. (Green circles = 2015 RC, Yellow = 2014 RC, Red = 2015 diamond hole).



### Shepherds Well Project – West Pilbara

Assay results from the 2015 soil sampling programme were received in the Quarter and are being evaluated.

### Yarrie Project

No significant work was undertaken during the quarter.

#### **Buddadoo Project**

No significant work was undertaken during the quarter.

## ABOUT COZIRON RESOURCES LIMITED

Coziron Resources Limited has exploration focussed on the Yarraloola (853km<sup>2</sup> of granted tenements) and Buddadoo (210km<sup>2</sup> granted) Projects and an option over Shepherd Well (193km<sup>2</sup>) and Yarrie (1022km<sup>2</sup>) (Fig 6). The Yarraloola, Buddadoo, Shepherds Well and Yarrie projects have iron-ore as the principal exploration target. The interest in the Earaheedy Project has been relinquished.

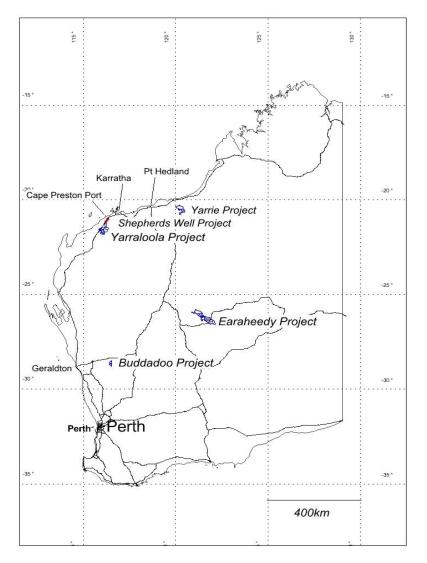


Fig 6. Location of the Coziron Resources Ltd projects in Western Australia.

For further information please contact Adam Sierakowski on 08 6211 5099.



#### **COMPETENT PERSONS STATEMENT**

The information in this report that relates to mineral resources and exploration results is based on information compiled by Rob Ramsay (BSc Hons, MSc, PhD) who is a Member of the Australian Institute of Geoscientists. Rob Ramsay is a full-time Consultant Geologist for Coziron and has sufficient experience which is 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". Rob Ramsay has given his consent to the inclusion in this report of the matters based on the information in the form and context in which it appears.

Project	Location	Tenement Number	Economic Entity's Interest at Quarter End	Change in Economic Entity's Interest During Quarter	
Yarraloola	West Pilbara, WA	E08/1060	85%	No Change	
Yarraloola	West Pilbara, WA	E08/1684	85%	No Change	
Yarraloola	West Pilbara, WA	E08/1685	85%	No Change	
Yarraloola	West Pilbara, WA	E08/1686	85%	No Change	
Yarraloola	West Pilbara, WA	E08/1824	85%	No Change	
Yarraloola	West Pilbara, WA	E08/1825	85%	No Change	
Yarraloola	West Pilbara, WA	E08/1826	85%	No Change	
Yarraloola	West Pilbara, WA	E08/2408	100%	No Change	
Yarraloola	West Pilbara, WA	P08/529	85%	No Change	
Yarraloola	West Pilbara, WA	P08/666	100%	No Change	
Yarraloola	West Pilbara, WA	P08/669	100%	No Change	
Shepherds Well	West Pilbara, WA	E08/2361	70%	No Change	
Yarrie	East Pilbara, WA	E45/3725	70%	No Change	
Yarrie	East Pilbara, WA	E45/3728	70%	No Change	
Yarrie	East Pilbara, WA	E45/4065	70%	No Change	
Yarrie	East Pilbara, WA	E45/4604	70%	No Change	
Yarrie	East Pilbara, WA	E45/4605	70%	No Change	
Yarrie	East Pilbara, WA	E45/4433	100%	No change	
Buddadoo	Mid-west, WA	E59/1350	85%	No Change	

#### <u>Coziron Resources Ltd – Changes to the Tenement Schedule in the past Quarter</u>