

Coziron Resources Limited

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The Company Announcements Office ASX Limited Via E Lodgement

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QUARTERLY ACTIVITIES REPORT TO

31st December 2020

Croydon Top Camp Project (CTCP) – North Pilbara

- CZR completed 13 inclined (-60°) RC holes for 2600 m in late December. All samples were transported to Bureau Veritas in Perth and submitted for gold by fire-assay.
- Assays from 1100 soil and historical auger samples were received and extend zones of gold and pathfinder anomalism over the major prospects and included a maximum gold value of 4.9 g/t from Top Camp.

Yarraloola Iron Ore – West Pilbara

- Metallurgical programme on stored sonic core from the Robe Mesa is complete and results are being interpreted.
- Davis tube processing of 252 samples from 10 stored RC drill-holes into the Ashburton magnetite is complete and results are being compiled and interpreted.
- A gravity and seismic survey covering the Ashburton magnetite is complete and the data is being processed and interpreted.

Shepherds Well Project – West Pilbara

- Geochemical results from 373 gridded soil samples outline drill targets within the Dorper nickel and Suffolk base-metal anomalies and 5 ppb to 1 g/t gold anomalies along the regional shear-zone for follow up.
- The 400m diameter Awassi radiometric anomaly reports +500 ppm rare-earth anomalism in soils that requires follow-up.

Buddadoo Project – West Yilgarn

• 1545 extensional and infill soil samples have been collected and comprehensively assayed from areas identified as having prospectivity for gold mineralisation.



Project Summaries

Coziron Resources is advancing exploration on five projects with activities this quarter focussed on the Croydon Top Camp ("**CTCP**") Yarraloola and Shepherds Well Projects in the Pilbara and the Buddadoo Project in the mid-west region of Western Australia. Details of each project and a summary of the activities and results are presented in the sections below.

Croydon Top-Camp Project (CTCP) – Pilbara

CZR is acquiring a 70% interest in the 317 km² Croydon Top-Camp project (CTCP, E47/2150) from the Creasy Group which is located 100km south-east of Karratha in the Pilbara. The tenement is subdivided into three discrete blocks that cover a crustal-scale north-east trending fault-system which separates granitic rocks of the Pilbara Craton from folded, metasedimentary rocks of the Mallina Basin. The company is focussed on the discovery of lode-style and related gold deposits which are the major source of production in Western Australia. The project has a database of historical exploration results. CZR has acquired high-resolution magnetic and radiometric data, reassayed selected auger pulps to verify and increase the geochemical coverage, and is extending soil sampling of more prospective areas (ASX Release: 10 October 2018 and 6 December 2018; 1 April 2019; 11 November 2019; 18 December 2019). The Top Camp prospect has a long history of small-scale eluvial and alluvial gold production from a suite of calcareous turbidites (poorly sorted sandstones and siltstones) in the Mallina Basin that are quartz and sulphide veined in parts and is a focus of exploration activity.

Top Camp Area – Reverse Circulation Drill drilling

During the Quarter, CZR completed an upgrade of the access track, prepared pads and completed RC drilling of 13 RC holes to 200 m deep that were inclined at -60° and sampled entirely on 1 metre intervals for 2600 m (drilling illustrated below (ASX release: 18 December 2019; Fig 1).



The drill-holes targeted broad zones of anomalous gold in soils, fault structures with the potential hosts of gold nuggets being recovered by prospectors and intervals beneath historical workings (Fig 1; ASX releases; 20 September 2018, 25 July 2019, 11 October 2019, 11 November 2019). The drill-holes intersected and sampled intervals of calcareous sands and silts in the turbidite sequence that contain variable amounts and grain-sizes of sulphide and intervals with quartz and sulphide veining. The relative abundance of sulphide in these rocks is generally regarded as a positive indicator of alteration systems associated with gold mineralisation.



All the 1 metre interval samples from the drilling were dispatched during the programme to Bureau Veritas in Perth for analysis of gold by fire assay. Results will be fully reported when they have been compiled and interpreted.



Fig 1 Location and projected traces of the 13 inclined (-60°) 200 m deep RC drill-holes holes into the Top Camp gold prospect overlain onto selected fire-assayed gold from soil and auger samples and the ESRI satellite image of the area.



CTCP Soil sampling and Mapping

CZR collected and submitted approximately 1100 soil samples sieved in the field at -2mm to Bureau Veritas Laboratories in Perth for full-suite analysis including gold by fire-assay, whole-rock XRF and lazer-ablation ICP for major and trace-elements on a fused disk from CTCP. (ASX Release: 11 October 2019). The results infill and extend gold and path-finder element anomalism for all the major prospects. Of greatest significance, is an extension of the gold and pathfinder-element anomalism to the west and north-west of Top Camp into areas where prospectors are recovering gold-nuggets but have not previously been soil-sampled (Fig 2; ASX release 11 November 2019).



Fig 2. Distribution of gold in all the soil and auger-samples from the Top Camp and Middle Camp Prospect and the distribution of prospector-recovered gold nuggets overlain on the ESRI satellite imagery.



Yarraloola Project – West Pilbara

The Yarraloola project is located 100km southwest of Karratha and contains **+90Mt** @ **53% Fe** (calcining to 60% Fe) of indicated and inferred JORC compliant CID (Pisolitic ironstone) in the Robe Mesa, Robe East Extension and P529 deposits (Fig 3). The resource includes a higher grade surface interval on the Robe Mesa of 24.9Mt @ 56% Fe (calcining to 62.7% Fe; ASX Release: 7 December 2015, 8 February 2016, 26 April 2017, 9 May 2017). During the quarter, a metallurgical study of stored sonic drill-core (ASX Release: 22 November 2016) was completed and the results will be released when they have been interpreted. The company also continues to evaluate opportunities for the development of the Robe Mesa, including discussions with potential partners, against the backdrop of the improved demand and pricing for iron ore.

CZR is also exploring a new style of volcanic-hosted magnetite mineralisation in the West Pilbara that has a similar geological setting to the Fortescue Metals Group's (FMG) Iron Bridge Project. The Ashburton has Davis tube results from RC and diamond-core with mass recoveries up to 42% and concentrates at a P80 of 22 microns with Fe greater than 67% and SiO₂ less than 5% (ASX Release: 28 April 2016, 3 August 2016, 1 June 2017). In the previous quarter, the Company sampled intercepts for Davis Tube processing from 10 stored RC holes with magnetic susceptibility greater than 10,000 SI units and generated a total of 252 predominantly 5 m interval samples (ASX Release 10 October 2019). The maximum intercepts were from holes in Spinifex Hill with YAR223 containing 121 m @ 26.4% Fe between 64 and 121 m and YAR 227 intersecting 137 m @ 28.3% Fe between 44 and 181 m (ASX Release: 1 June 2017). Davis tube processing at Bureau Veritas Laboratories in Perth is now complete and results for magnetite mass-yield and quality are being compiled and interpreted.

A gridded gravity and seismic survey to cover the Ashburton Project was completed during the quarter (Fig 4 ASX Release 10th October 2019). Results are being processed and interpreted and will provide additional constraints for the selection of the RC and diamond drill targets within the Ashburton magnetite project and contribute to the generation of a JORC-compliant resource.





Fig 3 Yarraloola tenements with the location of Robe Mesa, Robe East Extension and P529 pisolitic ironstone deposits, the Ashburton magnetite project and the traces of the major iron-formations in the West Pilbara of Western Australia.





Fig 4 Location of the 2017 RC holes sampled for Davis Tube, gravity and seismic survey stations for the Ashburton Project overlain onto the geology as mapped by Coziron Resources.

Shepherds Well Project – West Pilbara

Shepherd's Well (E08/2361) with an area of 77km², is located 60km south-west of Karratha and covers 15 km of a regional shear-zone that separates the Regal Terrane from the Jean Well Granodiorite and 22 km of the unconformity at the base of the Fortescue Basalt (Fig 5). The shear-zone is prospective for a range of mineralisation types, while the unconformity is being explored over a wide area of the Pilbara as a source of detrital gold mineralisation. Programmes of soil and rock-chip sampling and mapping have identified nickel (Ni), copper (Cu) and gold (Au) anomalism associated with an outcrop of talc-carbonate rock at Dorper Rise and lead (Pb), zinc (Zn) and silver (Ag) associated with a linear magnetic anomaly at Suffolk Ridge (ASX Release: 21 March 2017, 13 September 2016, 11 October 2017). In addition, where soil and drainage samples have been collected near the base of the Fortescue Basalt, they typically report anomalous gold.



During the quarter, 373 soil samples, screened at -2mm in the field were collected to infill and extend the grids from the Dorper and Suffolk anomalies. The samples were transported to Perth and submitted to Bureau Veritas Laboratories for comprehensive analysis. The compilation of results now outlines several clusters of soil samples with anomalous gold (Au > 5 ppb to 1g/t) that require follow-up work while the infill work at the Dorper nickel prospect and the Suffolk base-metal prospect has outlined potential drill-targets (Fig 5).



Fig 5 The location of Coziron soil samples with gold between 5 ppb and 1 g/t and the mineralised prospects overlain on the Geological Survey of Western Australia mapped 500,000 scale geology of the Shepherds Well project (E08/2361).

In addition to the Dorper and Suffolk anomalies, the northwards extension of soil sampling along the regional shear zone has identified rare-earth anomalism from Awassi. This prospect covers a 400m diameter radiometric anomaly where soil samples are potassic ($K_2O > 4\%$) and low phosphorus (100 ppm) but report anomalous total rare-earth contents up to 500 ppm with cerium to 318 ppm, lanthanum to 123 ppm and praseodymium to 30 ppm (Fig 6). The phosphorous-poor geochemistry from the samples reflects the potential for rare-earth carbonates and perhaps an alkaline igneous or carbonatitic source.

Follow-up work is planned as rare-earth metals have become of strategic importance for the efficient generation and use of electrical energy.





Fig 6 Distribution of cerium on the Awassi soils grid at Shepherds Well overlain on the ESRI satellite imagery with the trace of the edge of the almost flat-lying Fortescue Basalt over the older basement of the Jean Well Granodiorite.

Buddadoo Project – Murchison Province

The Buddadoo Project (E59/1350 and E59/2349) covers part of the Gullewa Greenstone Belt about 200 km east of Geraldton Port and 60 km from a rail siding at Morawa that connects to Geraldton and in proximity to the bitumen-road between the towns of Morawa and Yalgoo. The tenements cover gabbroic rocks with bands of massive and disseminated vanadiferous titanomagnetite and have prospectivity for gold and copper mineralisation (ASX Release: 29 July 2013, 17 October 2017 and 21 November 2018).

The Company has DMIRS approval for follow-up drilling of the vanadiferous magnetite mineralisation in the Buddadoo Gabbro that extends over a strike length of about 6km (ASX Release: 28 February 2018, 21 March 2018, 5 April 2018 and 7 February 2019). RC samples upgrade at -150 microns by low-intensity magnetic separation to Fe greater than 62% and combined SiO₂ and Al₂O₃ of less than 5% and would provide a low-contaminant feedstock for vanadium recovery by roast-leach. However, as the grind-size reduces to a P80 of -45 microns, concentrates report Fe from 66-



68%, V_2O_5 from 0.8 to 1.86%, TiO₂ from 1.4 to 5.7%, while the contaminants SiO₂ and Al₂O₃ are less than 1%. This finer grained material is a potential feedstock for iron-ore pellets used in the direct smelting of vanadiferous steel.

During the quarter, the company collected 1545 soil-samples, screened at -2mm in the field and these were submitted to Bureau Veritas Laboratories in Perth for comprehensive analysis. Details of the sampling programme will be published when the results become available and have been interpreted. The company already has DMIRS permission for RC drilling of the more advanced gold targets.

Yarrie Project – North Pilbara

The Yarrie Project consists of six granted exploration licences (E45/3725, E45/3728, E45/4065, E45/4433, E45/4604, and E45/4605) that cover a total of 419km², about 160km east of Port Hedland. Yarrie is serviced by bitumen and gravel roads and a natural gas pipeline between Pt Hedland and the Telfer copper-gold mine. The BHP-owned rail connection between the Yarrie mining area and Port Hedland also services this area.

The Yarrie tenements have the potential to host high-grade (+62% Fe) iron-ore deposits within the magnetically active Archaean-age Nimingarra Iron Formation. Historical RC drill intercepts with Fe greater than 62% from the Cabbage Tree and Kennedy Gap prospects require follow-up. There is also the potential for gold and base-metals associated with the strongly deformed, mixed mafic to ultramafic volcanic rocks that have interbedded metasediments in the Pilbara basement. In addition, E45/3278 covers a portion of the basal interval of the Fortescue Group that is prospective for gold in conglomerate.

No fieldwork was undertaken during the Quarter.

ABOUT COZIRON RESOURCES LIMITED

Coziron Resources Limited has exploration focussed on the Yarraloola (829km²), Shepherd Well (77km²), Croydon Top-Camp (317 km²) and Yarrie (419km²) Projects in the Pilbara region and Buddadoo (303km²) Project in the Yilgarn region of Western Australia.

This announcement is authorised for release to the market by the Board of Directors of Coziron Resources Limited.

For further information please contact Adam Sierakowski or Rob Ramsay 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	NIL	Forfeited
Yarraloola	West Pilbara, WA	E08/1685	NIL	Forfeited
Yarraloola	West Pilbara, WA	E08/1686	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	M08/519	85%	Application
Yarraloola	West Pilbara, WA	P08/666	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
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Buddadoo	Mid-west, WA	E59/1350	85%	No Change
Buddadoo	Mid-west. WA	E59/2349	85%	No Change

Coziron Resources Ltd – Changes to the Tenement Schedule in the past Quarter