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The Company Announcements Office  
ASX Limited Via E Lodgement

28 April 2017

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## **Quarterly Activities Report to 31<sup>st</sup> March 2017**

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### ***Yarraloola Project – West Pilbara***

#### *Robe Mesa CID Deposit*

- 1m interval RC samples from 42 vertical RC drill-holes for 1077 metres were submitted for analysis and results have been being provided to an independent resource geologist for assessment.

#### *P08/529 CID Mineralisation*

- 1m interval RC samples from the 17 RC drill-holes for 617 metres intersected intervals of pisolitic iron-stone in 12 holes were submitted for analysis and the results have been provided to an independent resource geologist for assessment.

#### *Ashburton Magnetite System*

- 1m interval RC samples from the 10 RC holes for approximately 2000m into Spinifex Hill, Discovery (now termed the Rossi Hill) and Southern (now Walrus Ridge Prospect) prospects were submitted for analysis and results are being compiled and interpreted.
- Petrographic study of the 2015 diamond-core has identified carbonate-facies iron-formation which will be significant for future options for the metallurgical studies.

### ***Shepherds Well Project – West Pilbara***

- A 600m long by 300m wide area (Dorper Rise Prospect) reports soils with nickel (Ni) to 3600ppm, chromium (Cr) to 1820ppm, cobalt (Co) to 150ppm, gold (Au) to 220ppb and platinum-group elements (Pt+Pd) to 36ppb.
- Results indicate that Dorper Rise is prospective for sulphide-hosted nickel and outcrop of talc-carbonate schist is interpreted as altered ultramafic.
- Soils over felsic rocks to the east of Dorper Rise report gold (Au) to 740ppb lead (Pb) to 940ppm and zinc (Zn) from 300 to 500ppm and represent an area that is prospective for gold and base-metal mineralisation.

## **Project Summaries**

### **Yarraloola Project – West Pilbara**

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 (Fig 1). 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 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 Warrambo, 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 any new discoveries. 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 controls an easement for a railway through the West Pilbara to a proposed port at Anketell Point. These proposed infrastructure corridors traverse the Coziron tenements.

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 (Fig 1).

### ***Robe Mesa Deposit***

#### *Background*

The Robe Mesa deposit is defined by 78 vertical RC drill-holes completed during 2014 and 2015 that intersected an upper and lower interval of pisolitic iron-stone with Fe>50%. The geology and geochemistry from the drilling has been used to generate and upgrade an independently calculated JORC-compliant resource which was announced in detail on the ASX on 7<sup>th</sup> December 2015 and 8<sup>th</sup> of February 2016 and is summarised in the following tables.

Robe Mesa Deposit – Updated Mineral Resource Estimate from February 2016 – reported above a **Fe cut-off grade of 50%**.

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

Robe Mesa Deposit – Updated Mineral Resource Estimate from February 2016 – reported above a **Fe cut-off grade of 55%**.

Category	Mt	Fe%	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	TiO <sub>2</sub> %	LOI%	P%	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	0.1	10.7	0.05	0.02	62.7
<b>Total</b>	<b>24.6</b>	<b>56.0</b>	<b>5.9</b>	<b>2.7</b>	<b>0.1</b>	<b>10.7</b>	<b>0.04</b>	<b>0.02</b>	<b>62.7</b>

The block-model developed from the resource estimation shows that the higher grade resource (Fe>55%) represents contiguous intervals on the upper section of both the lower and upper zone of mineralisation.

The block-model also highlights opportunities for further work. Areas of inferred resource can be infill drilled to increase the resource confidence. The lower-zone mineralisation which projects beneath the surface to the east and west of the mesa offers potential to increase the size of the resource. Recovery of metallurgical samples provide an opportunity to examine material in the 45-50% range which increases the available tonnage but maintains the global ore-grade at Fe = 52%.

During the last quarter of 2016, the Company completed a programme of sonic drilling as a lower-cost alternative to wider-diameter diamond drilling and RC drilling. The sonic programme consisted of three holes each to about 55m and the core will be used for a planned metallurgical test-work programme. The RC programme consisted of a total of 42 vertical holes for 1077m (Fig 2).

#### *Activities and Results*

All the holes were sampled on 1m intervals and the material has been analysed at Bureau Veritas in Perth and the results provided to an independent resource geologist for assessment. The final outcome will be reported when the resource model is updated.

#### *Future Work*

A metallurgical test-work programme is planned for the second quarter of 2017.

### **P08/529 Pisolitic Ironstone RC Drill Programme**

#### *Background*

Prospecting license P08/529 located on the south-western margin of the Yarraloola Project covers an area of ferruginous detritus associated with the Robe River channel system (Fig 1). A total of 17 vertical RC drill-holes for 617 metres were completed and sampled on 1m intervals in the last Quarter (Fig 3).

#### *Current Work Programmes and Results*

The samples have been analysed with the results provided to an independent resource geologist for assessment (Fig 3). The final outcome will be reported when the distribution of Fe-grade is reviewed within the framework of the geological model.

#### *Future Work*

The portion of the prospecting lease with the pisolitic iron-stone intercepts is being assessed for infill drilling.

## **Ashburton Magnetite System**

### *Background*

The Ashburton magnetite system is 60 kilometres south of the Sino magnetite mine operated by Citic Pacific Mining and is immediately adjacent to bitumen road access from the Pannawonica road and Great Northern Highway (Fig 1). The area of magnetite mineralisation is only 1-2 kilometres east of two gas pipelines and BC Iron Limited's proposed haul road to the port at Cape Preston east. This transport infrastructure provides potential access to Cape Preston and the proposed Cape Preston East ports.

The Ashburton magnetite system is a 12 kilometre long by 800 metres 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 on tenements E08/1686 and E08/1826 (Fig 1). The magnetite-mineralised rocks outcrop intermittently as a suite of north-west, trending, strongly folded, variably siliceous, chloritic schists that dip steeply to the south-west. Geochemical results from the RC and diamond drilling show that the magnetite-rich metasediments are hosted by a suite of andesitic to rhyolitic volcanics and are cut by later stage dolerite. The geological association suggests that 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 rather than part of the Hamersley Basin.

The mineralisation in the Ashburton which is volcanic-hosted and dips steeply to the south-west, 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 range from about 20 to 30m with the base of oxidation represented by the increase of mass-recovery of magnetite at less than 35m 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 commonly range from 30 to 40% with the concentrates reporting Fe > 67%, Al<sub>2</sub>O<sub>3</sub> < 1% and SiO<sub>2</sub> < 5%.

In the last quarter, RC drilling completed 10 inclined -60 holes, each to a depth of approximately 200m, for approximately 2000m on the Rossi Hill, Spinifex Hill, and Walrus Ridge Prospects (Fig 6).

### *Current Work Programmes and Results*

The 1m interval samples have progressively been submitted to Bureau Veritas Laboratories in Perth and results will be published when they are completed.

Petrographic studies of the magnetite-rich diamond-core in YARDDH002 include samples with up to 50% carbonate (Fig 5). In parts of the samples, the carbonate has a spherical outline and is associated with very fine grains of detrital quartz. The texture suggests a "primary origin" for the carbonate and this is the first indication of carbonate-facies iron formation in the Ashburton magnetite project.

The carbonate, which is soft, is also associated with fine-grained chloritic and sericitic mica and this mineralogy may be producing the excellent drill-rates and relatively low bit-abrasion that has been reported during each of the three RC drilling programmes completed to date. The presence of the carbonate also provides new data that can be used to examine the efficiency of different types of crushing and grinding equipment that might be available for the magnetite liberation test-work programme.

### Future Work

Mineralogical studies are continuing to provide data that has relevance to the design and development of a magnetite recovery circuit. Additional diamond drilling and sampling of the core will be required to map the extent and distribution of the carbonate-facies iron formation in the Ashburton system.

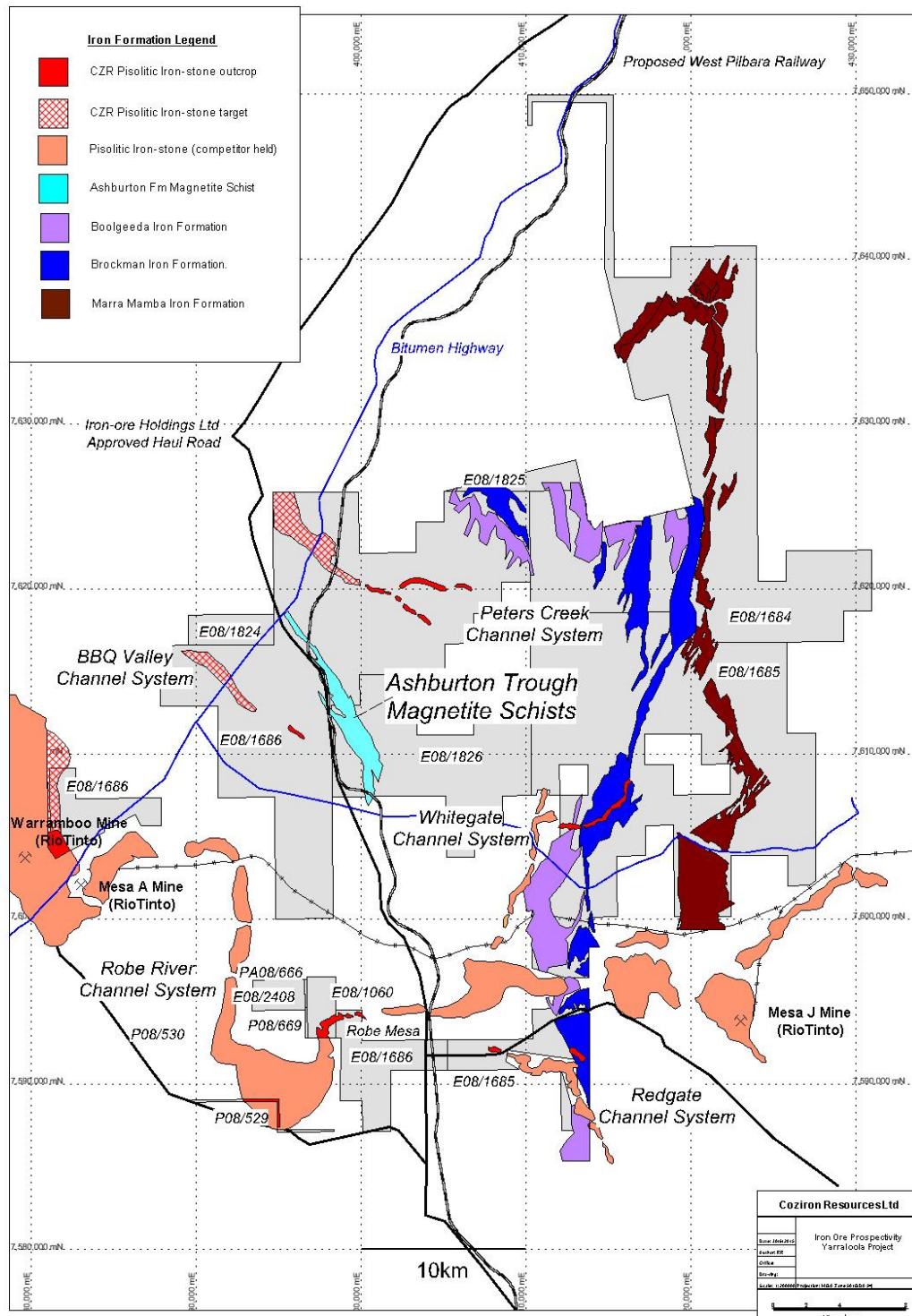


Fig 1. Location of the Robe Mesa and magnetite-schists in the Ashburton Trough on the Yarraloola Project, West Pilbara of Western Australia.

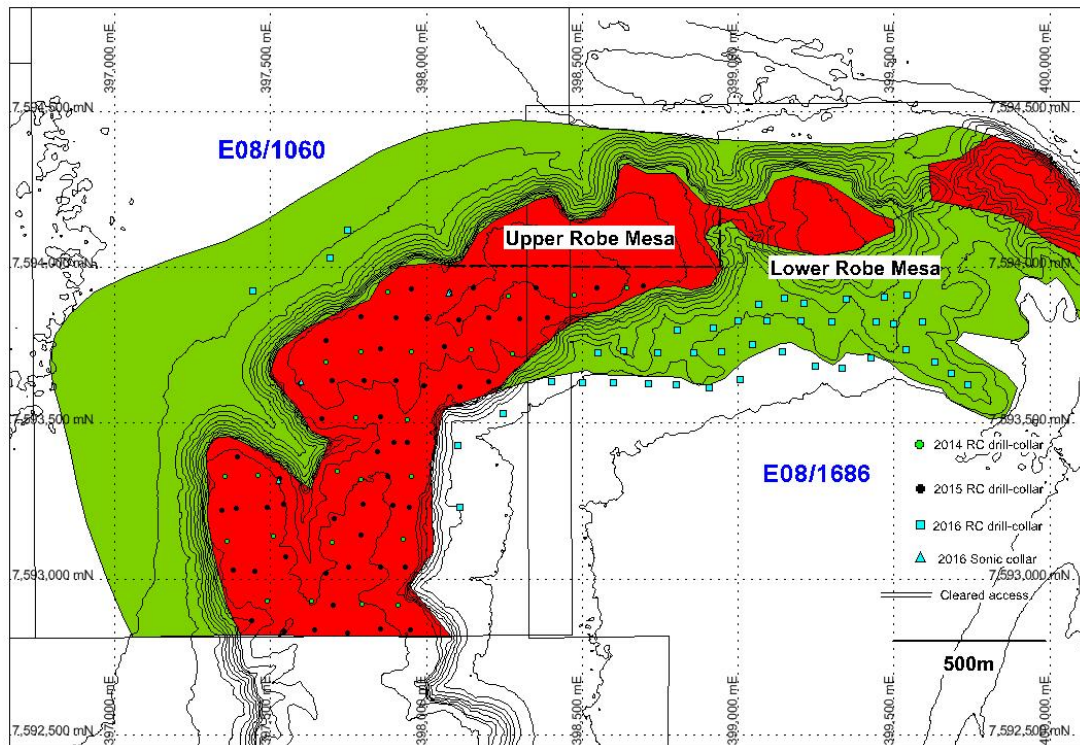


Fig 2. Robe Mesa on tenements E08/1060 and E08/1686 with 5m interval elevation contours distribution of the upper and lower Robe Mesa pisolitic ironstones with the locations of the 2014, 2015 and 2016 RC and Sonic drill-holes.

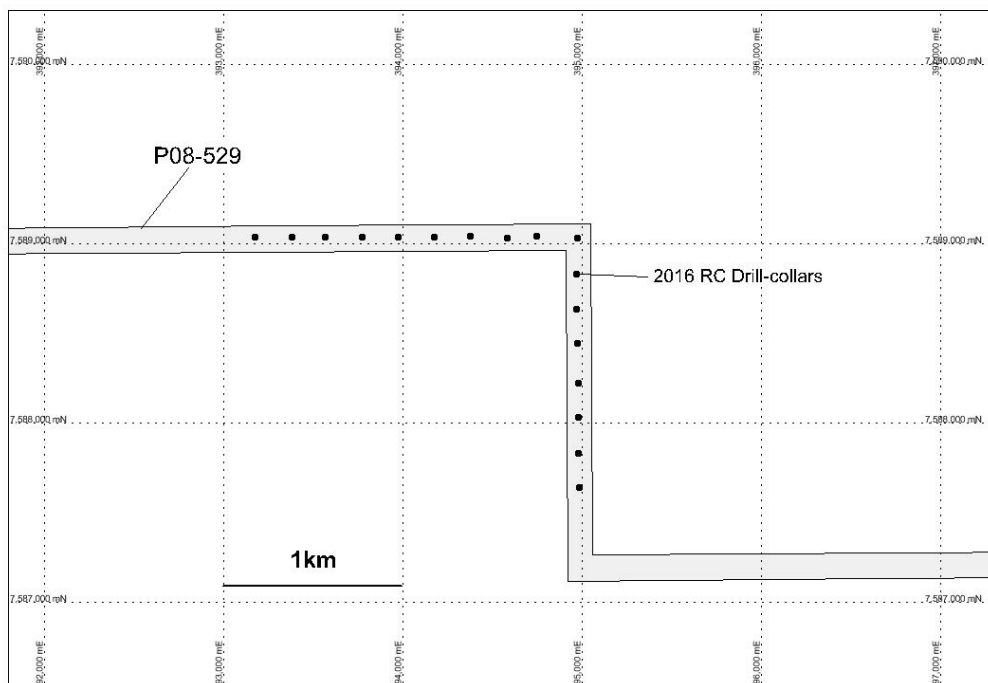


Fig 3. Location of the 2016 RC drill-collars on prospecting licence P08/529.

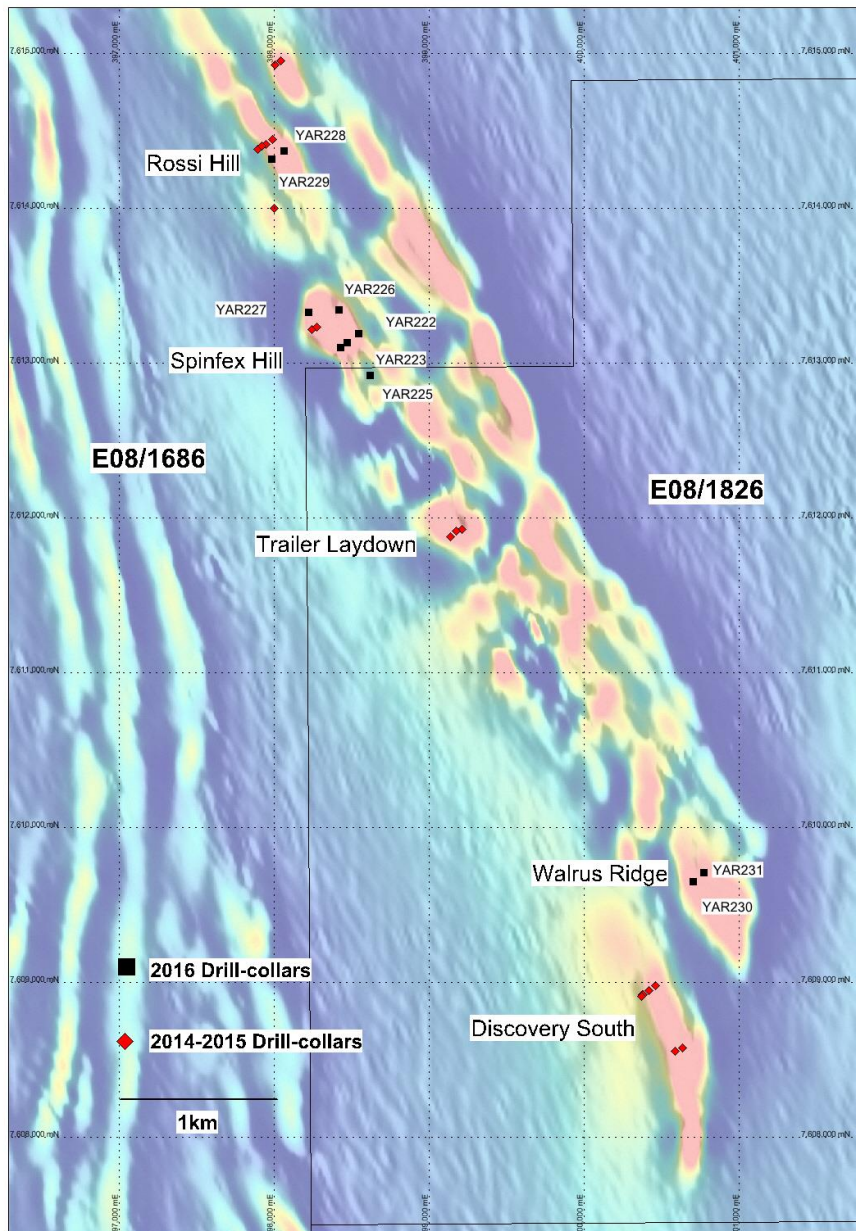


Fig 4. Location of the 2016 RC drill collars (black squares) from the Rossi Hill, Spinfex Hill and Walrus Ridge Prospects overlain on magnetic intensity associated with the Ashburton magnetite system and the 2014 and 2015 RC drill-collars (red diamonds).

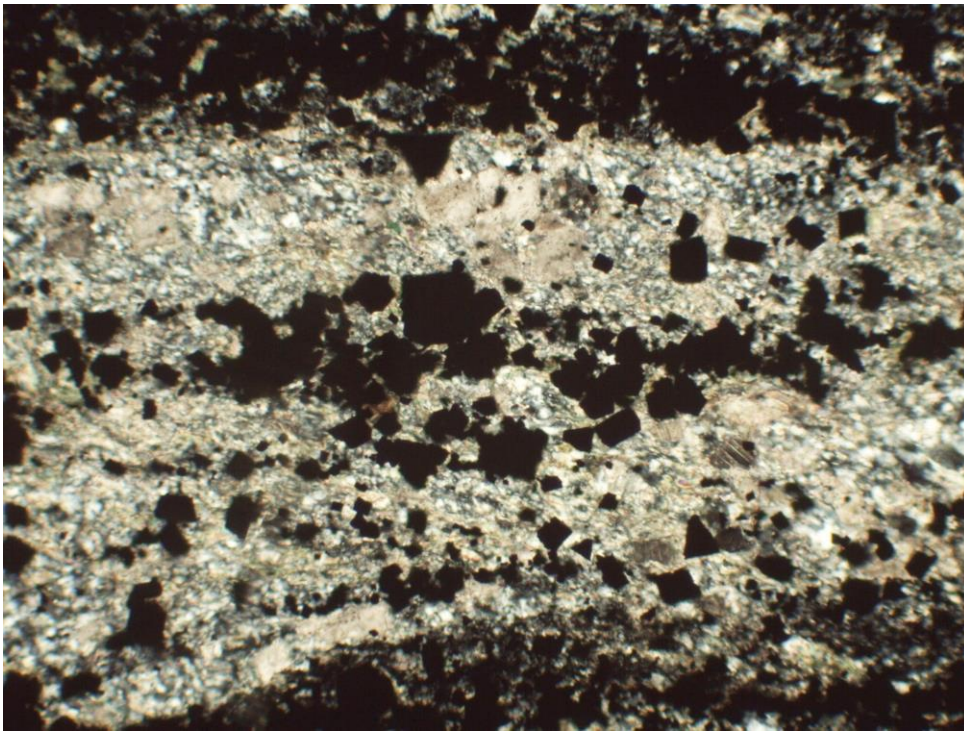


Fig 5. Photomicrograph of YARDDH002 398.7m from the Trailer Laydown Prospect showing the textures and mineralogy of the carbonate-rich (light pink) magnetite-poor (opaque) laminae within the iron formation (field of view is approximately 2mm).

## Shepherds Well Project – West Pilbara

### *Background*

The Shepherds Well project (E08/2361) is located in the west of the Pilbara about 60km south-west of Karratha. The area has a basement of basaltic, felsic and metasedimentary rocks unconformably overlain by Fortescue Basalts and sediments of the Hamersley Basin (Fig 6). The tenement is accessed from the Great Northern Highway, is located only 25-50 km from a new proposed public access port at Cape Preston East, and is crossed in part by an easement for the proposed West Pilbara railway. The area is prospective for iron-ore, gold and base-metals.

Historical records and earlier programmes of wide-spaced soil and rock-chip sampling by Coziron have identified areas showing anomalism in gold (Au), platinum-group (Pd + Pt), nickel (Ni), cobalt (Co), lead (Pb) and zinc (Zn). The geochemical results have high-lighted two areas of interest that are now named Dorper Rise and Suffolk Ridge (Fig 6). This announcement reports new results from the Dorper Rise prospect.

### *Activities and Results*

An additional 205 soil-samples were recently collected from the Dorper Rise prospect bringing the total number of soils with assays on the tenement to 746. The soil lines were also mapped for geology. All the samples were sent to at Bureau Veritas Laboratories in Perth and the processing methods and analytical procedures were fully reported on the 21 March 2017. After the assays were received, they were collated with previous results and then overlain onto a range of data-sets including mapped geology, google surface-imagery and the available magnetic and radiometric imagery.



The most significant results can be summarised as follows.

1. A poorly outcropping area of talc-carbonate schist covering an area of about 600m by 300m is interpreted as representing an altered ultramafic rock. Soils overlying the area are entirely anomalous in nickel (Ni) up to 3600 ppm, but values greater than 1000 ppm are distributed in an area of about 300m by 70m and represent a priority drill target (Fig 7). In addition to nickel (Ni), the soils also have chromium (Cr) to 1820 ppm and there is an association of higher nickel (Ni) with gold (Au) to 220 ppb (Fig 8), cobalt (Co) to 150 ppm, platinum group elements (Pd + Pt) to 36 ppb and arsenic (As) suggesting a sulphide-association.
2. Felsic rocks along the eastern margin of the talc-carbonate schist have soils that are anomalous in zinc (Zn) from 300 to 500ppm also report gold (Au) to 740ppb (Fig 8), lead (Pb) to 940ppm (Fig 9).

#### *Future Work*

The mapping and soil geochemistry have highlighted higher levels of nickel (Ni) with other sulphide-associated elements (such as cobalt, PGE and arsenic) within talc carbonate schists at Dorper Rise and this prospect represents a target for drilling.

To the east of Dorper Rise, the soils over the felsic rocks are anomalous in gold (Au) and base-metals (Pb + Zn) and require infill sampling to further constrain targets for drilling.

#### **Yarrie Project – North Pilbara**

No significant activity was undertaken during the quarter.

#### **Buddadoo Project – West Yilgarn**

No significant work was undertaken during the quarter.

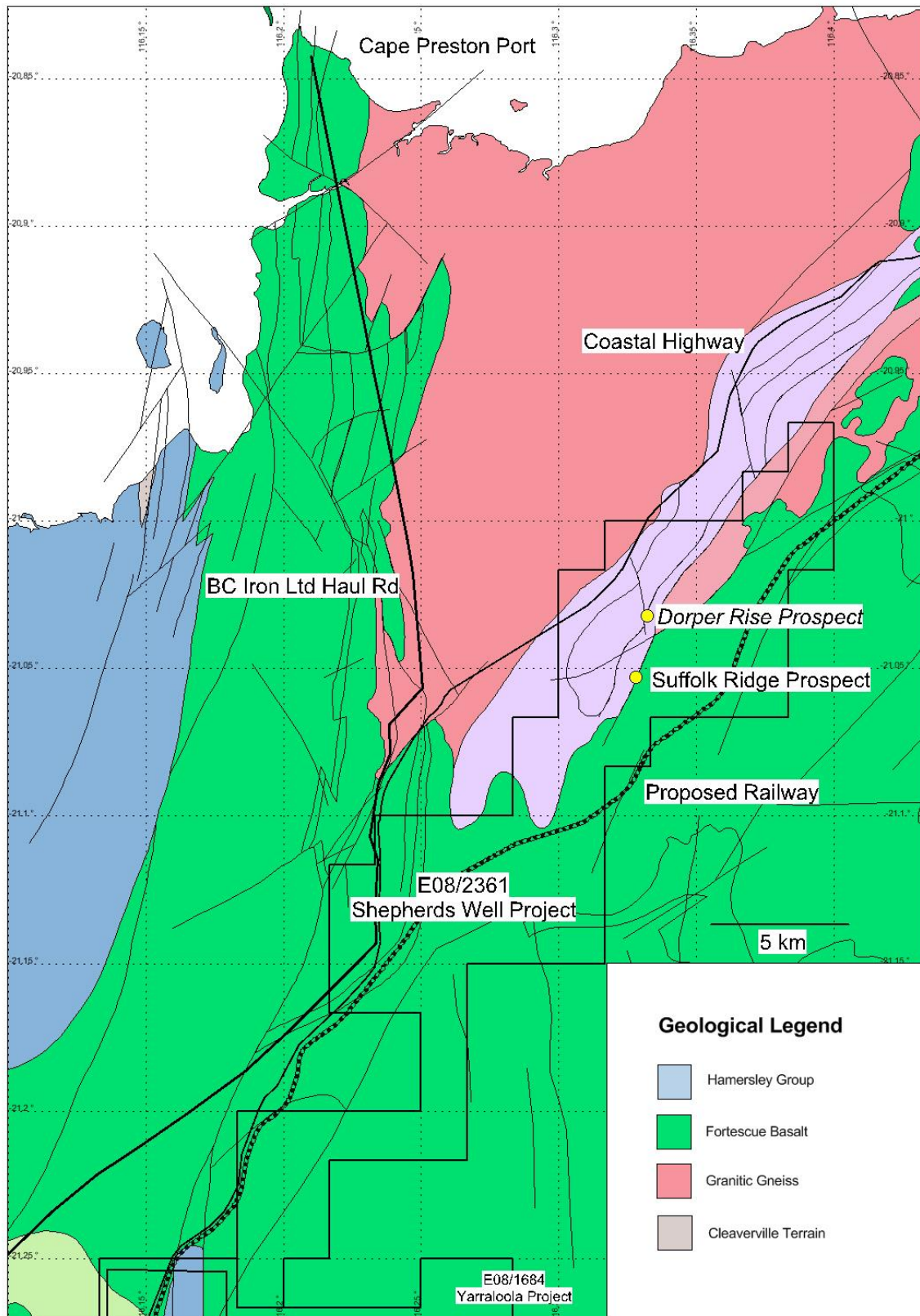


Fig 6. Regional geological setting of the Shepherds Well Project (E08/2361) showing the distribution of the iron-ore and base-metal (Ni + Pb + Zn) prospective Cleaverville Terrain and the location of the Dorper and Suffolk Prospects.

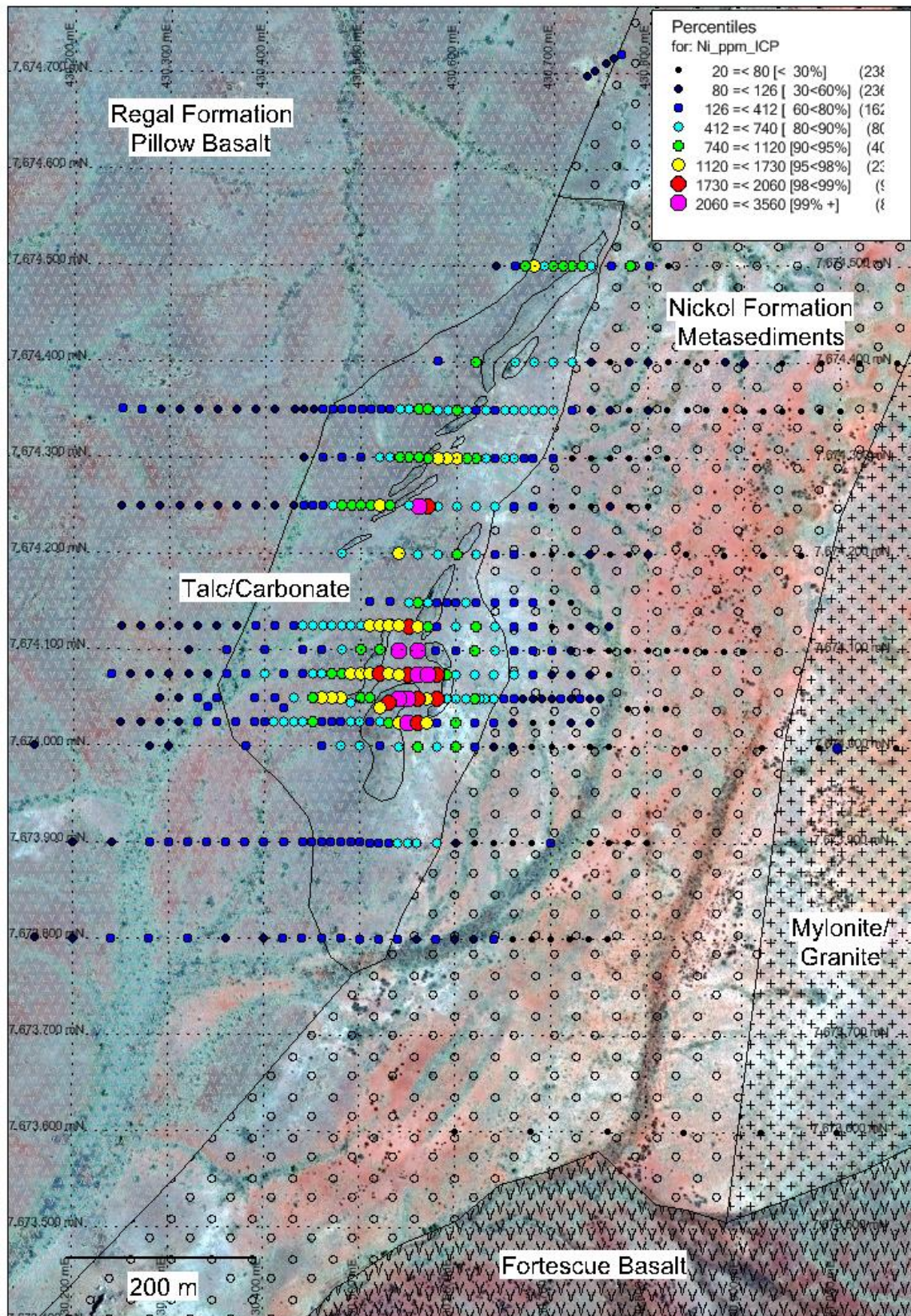


Fig 7 - Soil sample locations showing the percentile nickel (Ni) distribution on the Dorper Rise Prospect overlain on Google satellite imagery and geological polygons from Geological Survey of Western Australia that have been updated by Coziron Resources.

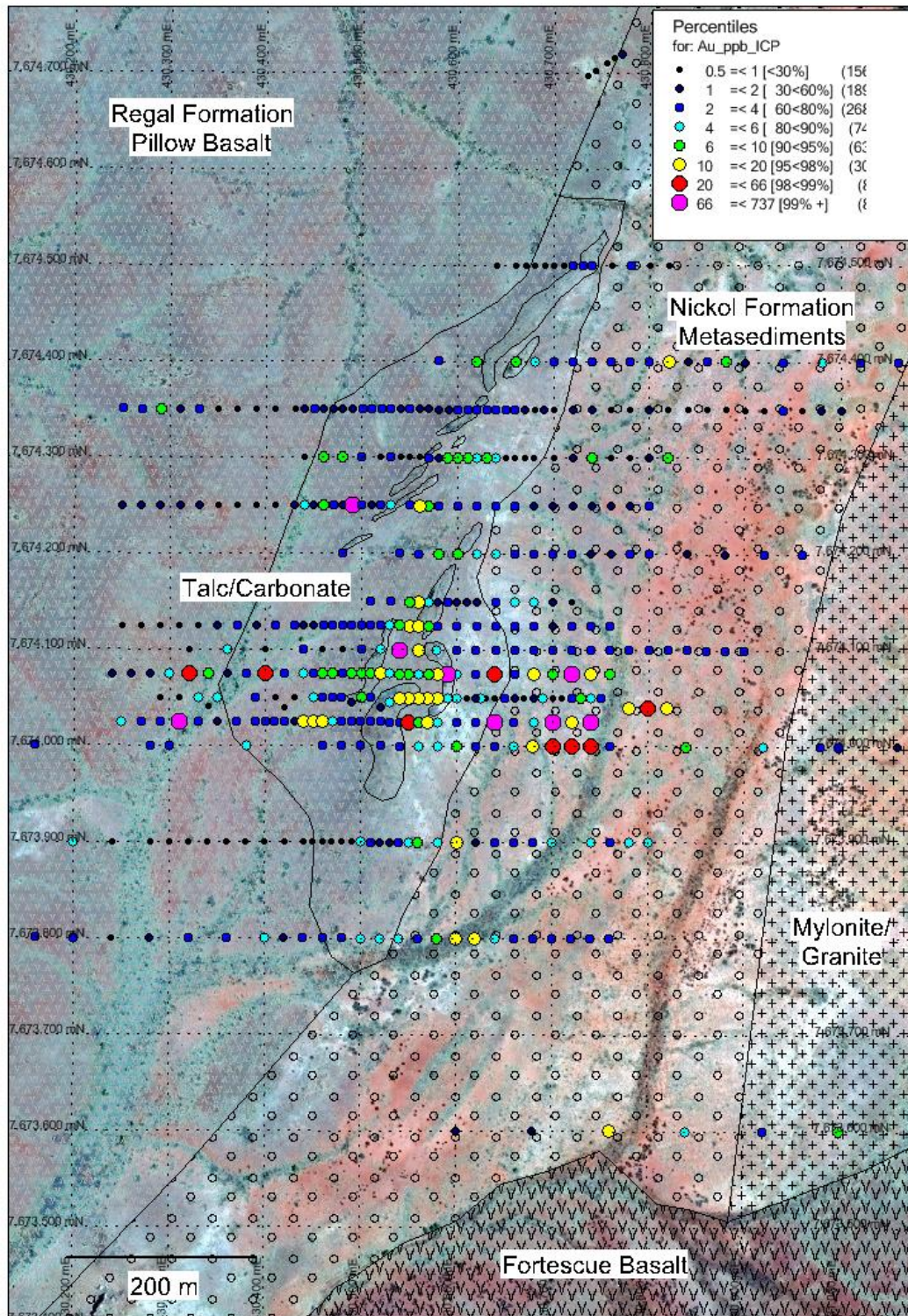


Fig 8 - Soil samples locations showing the percentile gold (Au) distribution on the Dorper Rise Prospect overlain on google satellite imagery and geological polygons from Geological Survey of Western Australia that have been updated by Coziron Resources.

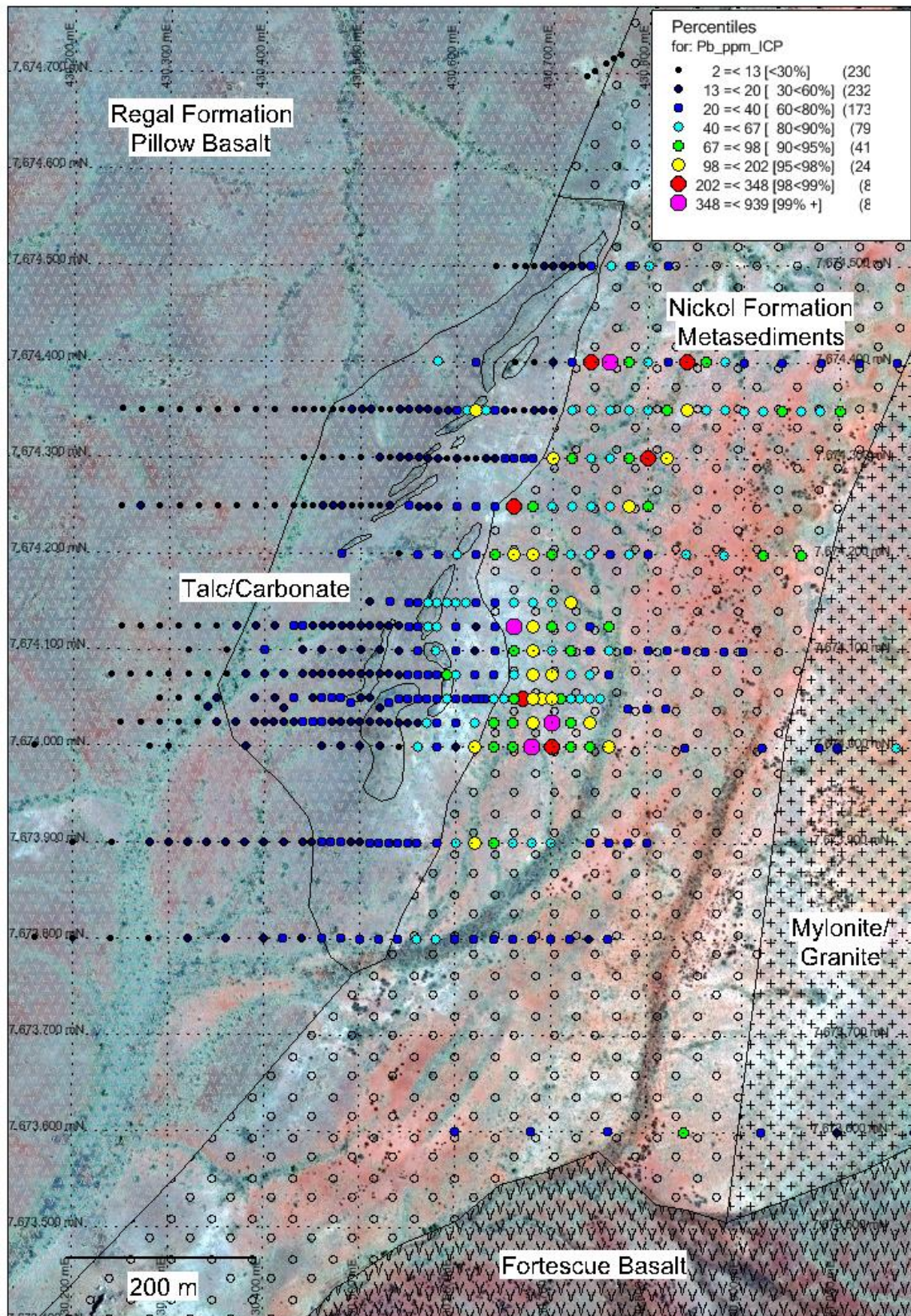
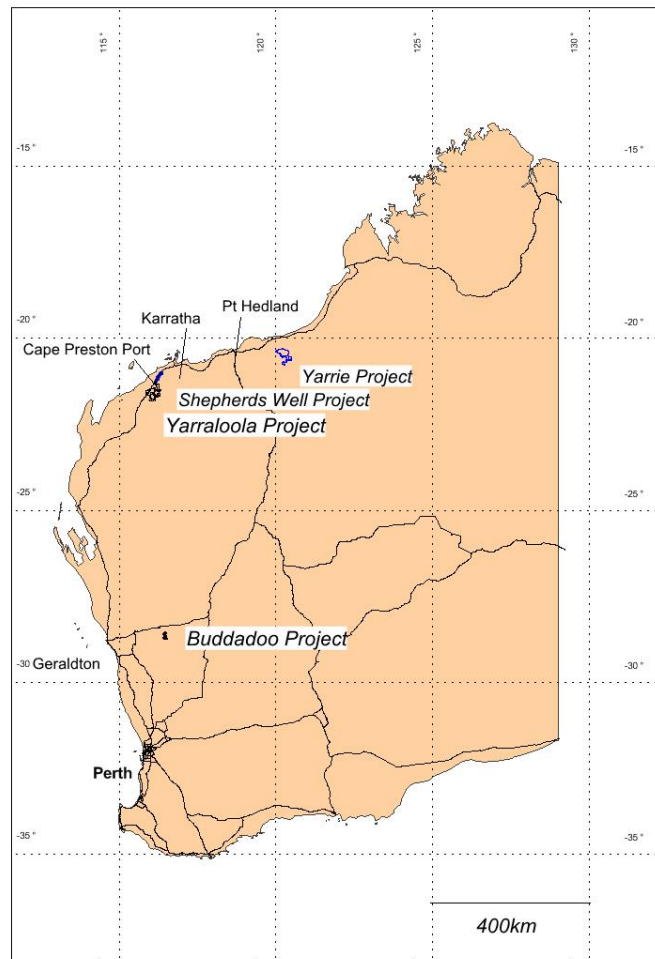


Fig 9 - Soil samples locations showing the percentile lead (Pb) distribution on the Dorper Rise Prospect overlain on Google satellite imagery and geological polygons from Geological Survey of Western Australia that have been modified by Coziron Resources.

## **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 (357.5km<sup>2</sup>). The Yarraloola, Buddadoo, Shepherds Well and Yarrie projects have iron-ore as the principal exploration target (Fig 10).



*Fig 10. 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.*

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

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