



Coziron Resources Limited

ASX Code: CZR

Contact Details

Level 24, 44 St Georges Tce
Perth WA 6000

PO Box Z5183
Perth WA 6831

T +61 (0) 8 6211 5099

F +61 (0) 8 9218 8875

E info@coziron.com.au

W www.coziron.com

ABN 91 112 866 869

Board of Directors

Adam Sierakowski
Non-Executive Chairman

Dr Rob Ramsay
Non-Executive Director
Senior Geologist

Steve Lowe
Non-Executive Director

The Company Announcements Office
ASX Limited via E-Lodgement

3 December 2015

Yarraloola Project – Interim Updated Mineral Resource of **84.5Mt @ 53.8%Fe (Fe_{Ca} of 60.2%)** in the Robe Mesa Channel Iron Deposit (CID)

HIGHLIGHTS

- Total Inferred Resource of 84.5 Mt @ 53.8% Fe (calcined iron, Fe_{Ca} of 60.2%) + 8.3% SiO₂ + 3.4% Al₂O₃ + 0.04% P + 10.6% LOI above a cut-off grade of 50% Fe (Fe_{Ca}>55%).
- Includes a higher grade Inferred Resource of 24.6 Mt @ 56% Fe (Fe_{Ca} of 62.7%) + 5.9% SiO₂ + 2.7% Al₂O₃ + 0.04% P + 10.7% LOI at above a cut-off grade of 55% Fe (Fe_{Ca} of 60%).
- Represents a 16% increase in the Inferred Resource at Fe > 50% and a 25% increase in the higher grade resource at Fe > 55% as announced on 3 February, 2015.
- The Inferred Resource includes an upper (outcropping) zone up to 25m thick and lower (subcropping) zone up to 25m thick of sub-horizontal pisolitic iron-stone mineralisation separated by up to 20m of shaley material.
- The Inferred Resource (Fe>50%, Fe_{Ca}>55%) is characterised by low phosphorus (P<0.05%) and high loss on ignition (LOI of 9 to 12%).
- The Inferred Resource is open to the North and East and further drilling is planned to extend the resource area.
- Additional replicate assays are being undertaken at a second laboratory to provide further data with the aim of increasing the resource confidence.
- Resource increase represents a successful exploration result from the second drilling programme undertaken on the Robe Mesa, one of 5 target areas at Yarraloola potentially hosting significant volumes of CID-style mineralisation in an area that provides a number of potential infrastructure solutions.

Yarraloola Project

Background

The Robe Mesa is an elevated region situated at the Southern end of the Yarraloola project area. The Mesa has a total length of about 2.5km and a width of between 400 to 600m with a pisolitic iron-stone capping (CID-type iron-ore) on the Company's tenements E08/1060 and E08/1686 (Fig 1).

In November 2014, a total of 25 vertical holes for 1,562 meters were completed along about 1km of the Robe Mesa on an approximately 200 meter grid. In 2015, the grid was infilled and extended with an additional 53 vertical RC holes for 3,374 meters which brings the grid onto an approximately 100m spacing (Fig 1). Samples were dispatched from site to Bureau Veritas Laboratories in Perth for basic iron-ore suite XRF analysis. The intercept results and a summary of the geological interpretations were reported by the company to the ASX on 23-September-2015. The geological and geochemical data confirms the geological model established for the Robe Mesa in 2014, which identified an upper and lower interval of pisolitic iron-stone that are separated by 15-20 meters of sandy iron-stone.

Subsequently, the geological model and the assay database were provided to Optiro Pty Ltd (Optiro) for an independent assessment of the effect of the new results on the maiden Inferred Mineral Resource which was reported to the ASX on 3th February 2015. Using Surpac and the detailed parameters presented in the attached tables in Appendix 1, Optiro reports the following.

Table 1. Robe Mesa – Mineral Resource Estimate at December 2015 – reported above a **Fe cut-off grade of 50%**.

Category	Mt	Fe%	SiO ₂ %	Al ₂ O ₃ %	TiO ₂ %	LOI%	P%	S%	Fe _{ca} %
Inferred	84.5	53.8	8.3	3.4	0.14	10.6	0.04	0.02	60.2

Table 2. Robe Mesa – Mineral Resource Estimate at December 2015 – reported above a **Fe cut-off grade of 55%**.

Category	Mt	Fe%	SiO ₂ %	Al ₂ O ₃ %	TiO ₂ %	LOI%	P%	S%	Fe _{ca} %
Inferred	24.6	56.0	5.9	2.7	0.1	10.7	0.04	0.02	62.7

The total tonnage of the Inferred Mineral Resource at Fe > 50% has increased by about 16% and the higher grade material with Fe > 55% by 25% without any significant changes to contaminant content.

Additional umpire assay work is currently underway at SGS Laboratories in Perth. It is expected that the results of this work will lead to an increase in the current confidence of the resource category. Results will be announced when the assays are reported and the review is completed.

Mineral Resource Commentary

For completeness, the JORC-tables in Appendix 1 attached to this announcement are summarised and commented on as follows.

The Mineral Resource model was generated using all 78 holes, which were drilled on an approximate 100m grid (Fig 1), using a reverse circulation rig and a face sampling hammer with the chips that passed through a rotary cone-splitter to recover 2-3kg on 1 meter down-hole intervals and assayed for a suite of major and minor envelopes by XRF of fused disks.

The 2014 programme reported an extended iron-ore suite of elements and loss on ignition (LOI) by thermo-gravimetric analysis (TGA) at Bureau Veritas Laboratories. The 2015 programme reduced the elements to a basic iron-ore suite but retained the TGA.

All sample intervals were collected in duplicate during drilling and approximately 20% of the field-duplicates were submitted for analysis. Iron (Fe) is reported both as a total XRF value and also as a calculated calcined iron (Fe_{Ca}) that reflects the Fe-content after the loss of volatiles which occurs during smelting. The calcined-iron content is calculated using the formula $(Fe\% / (100 - LOI)) * 100$.

The pisolitic iron-stone mineralisation in the Robe Mesa is modelled as an essentially flat-lying detrital deposit which is hosted in a palaeo-channel system. All the drill-holes intersect the entire channel sequence and are stopped when the underlying basement of Proterozoic-age schist is detected. Representative schematic geological cross-sections are included to provide guidance on the interpreted relationships of the reported intercepts between the drill-holes and potential for lateral continuity (Figs 2 and 3).

Two intervals of dark reddish brown, pisolitic iron-stone that are each up to 25m thick were intersected. These are separated by up to 20m of lighter coloured sandy and shaley material. The upper interval of pisolitic iron-stone is well exposed as a continuous outcropping sheet on the mesa. The deeper interval of pisolitic ironstone appears to represent the subcrop extension of a partially exposed, lower level of pisolitic iron-stone mineralisation to the east of the Robe Mesa. The reported intervals of mineralisation which were previously reported (ASX:CZR on 12-Dec-2014) are interpreted as true-thickness intercepts of pisolitic iron-stone with $Fe > 50\%$. These intervals have been interpreted and wire-framed to calculate volumes which are converted to tonnages using a bulk density of 2.6.

Future Work

A number of extensions immediately adjacent to the north and east of the Robe Mesa deposit have been identified and are currently being evaluated for future drilling programs. It is expected that future drilling will extend the known resource area of the Robe Mesa.

A diamond drilling program is also being planned to recover samples for future metallurgical test-work.

The Yarraloola Project also hosts a number of additional CID targets with pisolitic iron-stone mineralisation, which are currently being evaluated for initial exploratory drilling.

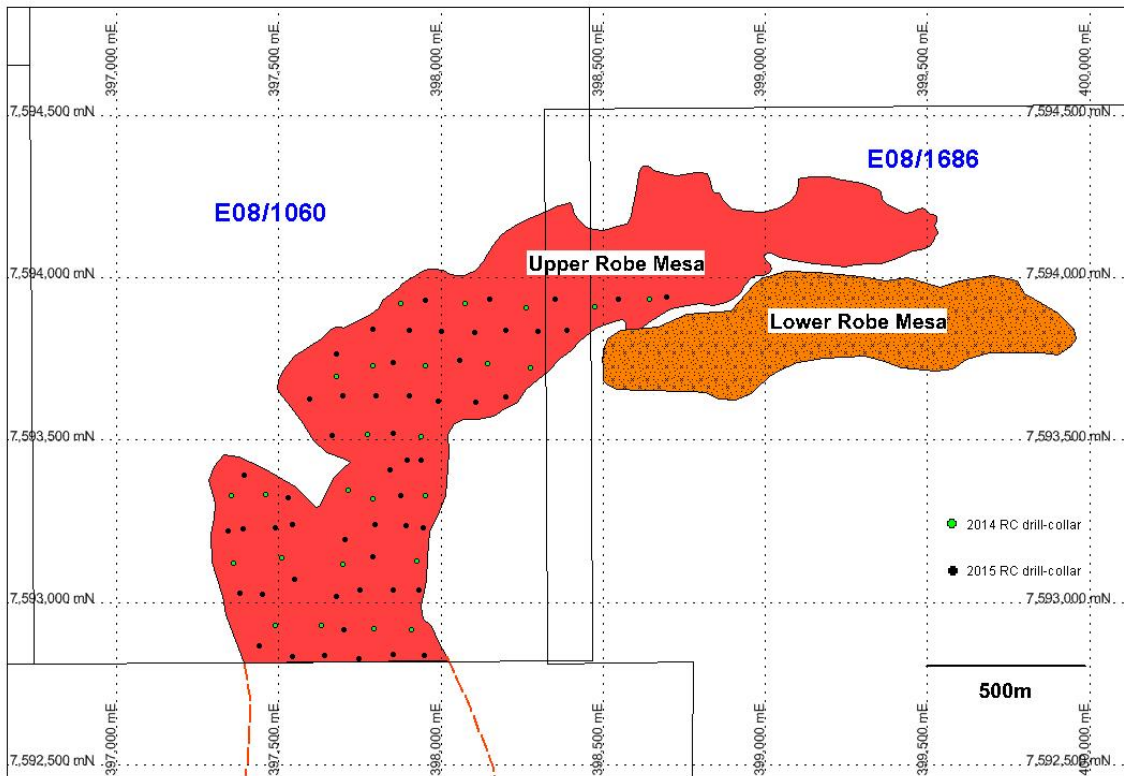


Fig 1. Location of 2014 and 2015 RC drill-collars on the Robe Mesa in the tenements E08/1060 and E08/1686 from which the JORC-Compliant Inferred Resource has been updated.

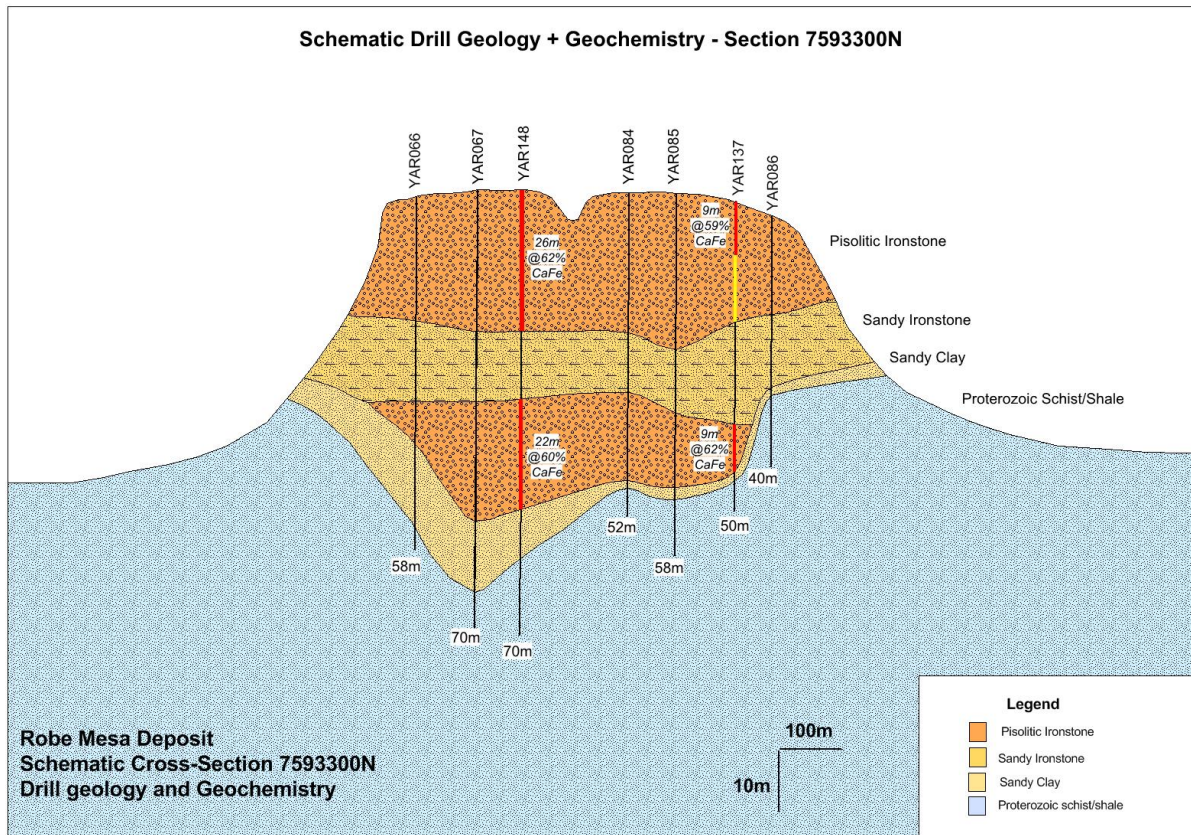


Fig 2. Interpreted geological cross-section on 7593300N (from Fig 1) showing the 1m sampled down-hole intervals from the 2015 infill drill-holes reporting calcined Fe>55% (Fe>50%).

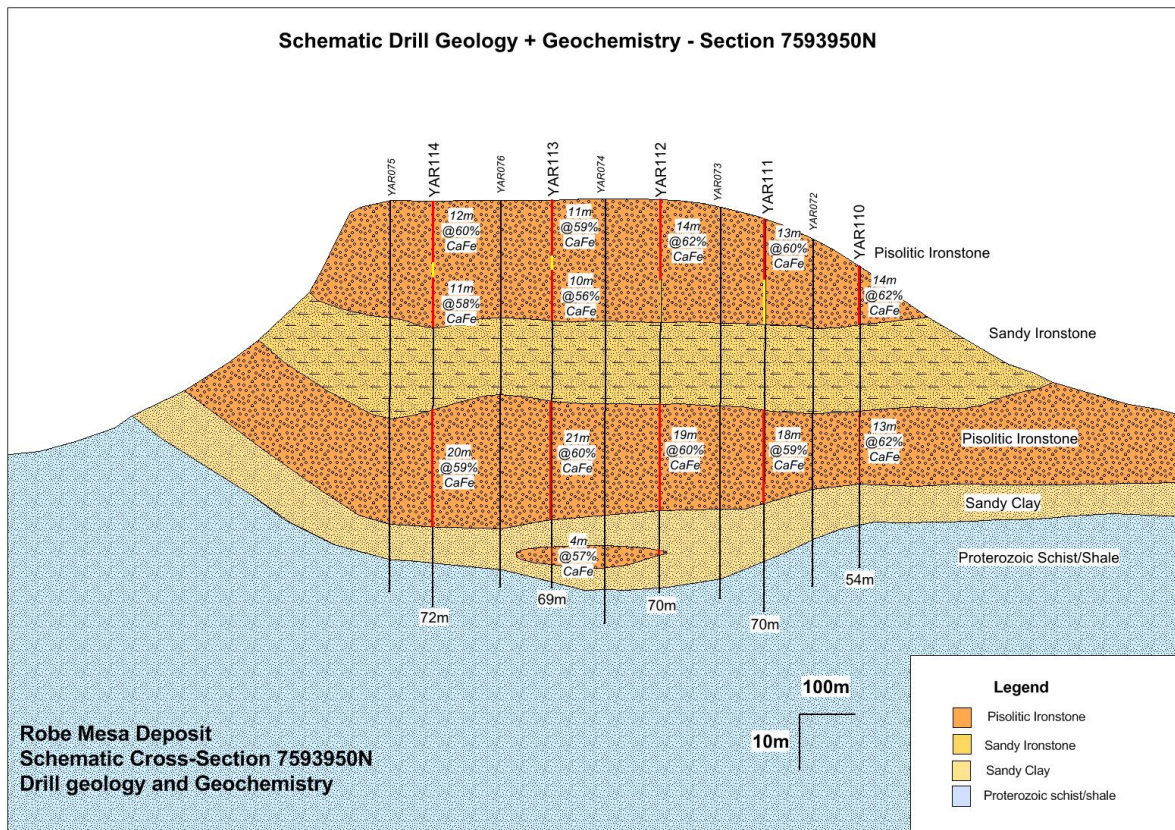


Fig 3. Interpreted geological cross-section on 7593950N (from fig 1) showing the 1m sampled down-hole intervals from the 2015 infill drill-holes reporting calcined Fe>55% (ie Fe>50%).

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

Competent Persons Statement

The information in this report that relates to exploration results is based on information compiled by Dr Rob Ramsay (BSc Hons, MSc, PhD) who is a Member of the Australian Institute of Geoscientists. Dr Ramsay is a full-time Consultant Geologist for Coziron. The information that relates to the Mineral Resource Estimate has been compiled by Mr Paul Blackney of Optiro Pty Ltd. who is a Member of the Australasian Institute of Mining and Metallurgy.

Both Dr Ramsay and Mr Blackney have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activities which they have undertaken to qualify as a Competent Persons as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Dr Ramsay and Mr Blackney have given their consent to the inclusion in this report of the matters based on the information in the form and context in which it appears.

Background – Prospect Locations and Iron Formation targets on the Coziron Resources, Yarraloola tenement package.

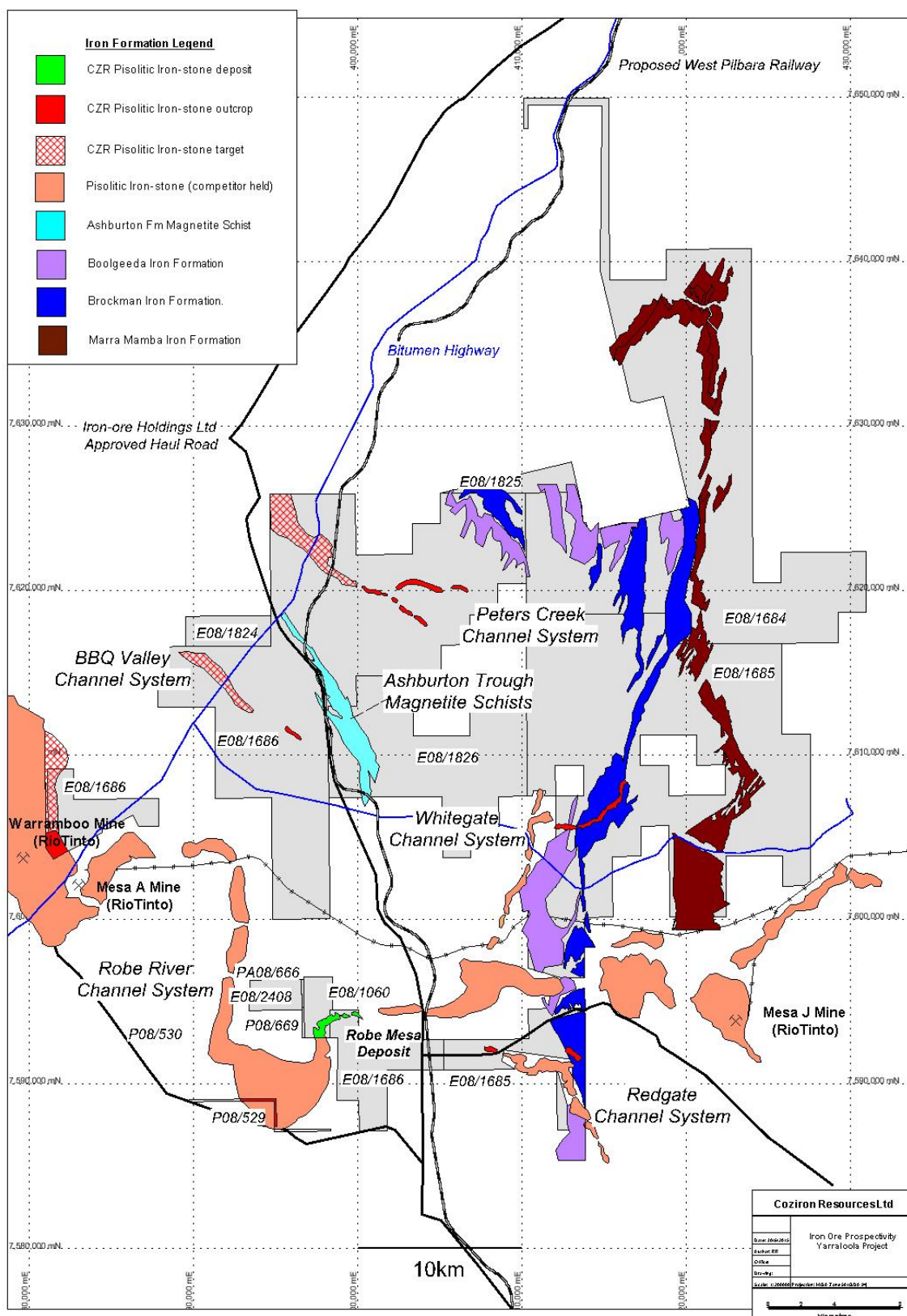


Fig 4. Distribution of banded iron-formations and targets for CID mineralisation on the Yarraloola Iron-ore project in the West Pilbara and highlighting the Robe Mesa deposit on E08/1060.

Appendix 1 – Reporting of exploration results and ore-resources from the Robe Mesa Prospect in the Yarraloola Project - JORC 2012 requirements.

Section 1 Sampling Techniques and Data		
Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. 	The results presented are derived from a 5.5" (140mm) reverse circulation drilling programme with continuous down-hole sampling.
	<ul style="list-style-type: none"> Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 	All drill cuttings were passed through a continuously operating rotary cone splitter and collected on 1m intervals. During the drilling of each meter, 2-3kg of drill chips were split off and collected in a labelled calico sample bag.
	<ul style="list-style-type: none"> Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information. 	The entire 2-3kg drill-chip sample was crushed, dried and pulverized at Ultratrace Laboratories (Bureau Veritas) in Perth, Western Australia. A sub sample was fused and the "extended iron-ore suite" of major oxide and selected trace-element analysis was obtained by XRF Spectrometry in 2014 and a basic iron-ore suite was reported from the 2015 programme because most trace elements are below detection.
Drilling techniques	<ul style="list-style-type: none"> Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc). 	All 25 drill holes were drilled by reverse circulation (RC) technique, using a 5.5" (140mm) face-sampling percussion hammer.
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. 	Sample size was monitored by Geologists during the drilling programme. The volume of sample derived from each meter drilled was approximately equal.
	<ul style="list-style-type: none"> Measures taken to maximise sample recovery and ensure representative nature of the samples. 	Standard RC sampling techniques were employed and deemed adequate for sample recovery. Some water was injected into the sample stream during drilling to minimise the loss of fine particles.
	<ul style="list-style-type: none"> Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	The loss of fine material has been minimized during drilling. Sample recovery is regarded as being representative.
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. 	Each metre of reverse circulation chips is described geologically for mineralogy, colour and texture. No mineral resource estimates are included in this report.
	<ul style="list-style-type: none"> Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. 	Logging is qualitative.
	<ul style="list-style-type: none"> The total length and percentage of the relevant intersections logged. 	All drill holes were logged at 1m intervals, for the entire length of each hole.

Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. 	No core was collected for this study
	<ul style="list-style-type: none"> If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. 	Reverse circulation drill chip samples were collected dry and split by a continuously operating rotary cone splitter during drilling.
	<ul style="list-style-type: none"> For all sample types, the nature, quality and appropriateness of the sample preparation technique. 	Reverse circulation drilling is an appropriate method of recovering representative samples though the interval of mineralization. The drilling contractor used suitable sample collection and handling procedures to maintain sample integrity.
	<ul style="list-style-type: none"> Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. 	Duplicate samples were simultaneously collected in mineralized intervals, using the rotary cone splitter. Approximately 20% of duplicate samples were analysed to ensure representivity.
	<ul style="list-style-type: none"> Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. 	The reverse circulation method samples continuously and the rotary splitter selects a representative proportion of the sample, providing an indication of compositional variations associated with each lithology or mineralized interval.
	<ul style="list-style-type: none"> Whether sample sizes are appropriate to the grain size of the material being sampled. 	The 2-3kg of homogenized drill chips that was recovered for each sample is sufficient to provide a representative indication of the material being sampled.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 	All samples were analysed at Ultratrace Laboratories in Perth. A selected suite of major-element oxides and trace element oxides were determined by XRF analysis on fused disks. Loss on Ignition (LOI) was determined by thermogravimetric analysis at 1000° C
	<ul style="list-style-type: none"> For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. 	No hand-held geophysical tools or hand-held analytical tools were used for the reported results.
	<ul style="list-style-type: none"> Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	Laboratory QAQC involves the use of internal lab standards using certified reference material, blanks, splits and replicates as part of their in-house procedures. Results highlight that sample assay values are accurate and that contamination has been contained.
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. 	No independent or alternative company personnel were used to verify the intersections.
	<ul style="list-style-type: none"> The use of twinned holes. 	The drill intercepts reported are from a first and second phase exploratory drill programmes.
	<ul style="list-style-type: none"> Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. 	Assay data was received electronically and uploaded into an access database. Printed copies of analysis results was also received by post and filed in Perth. All hand-held GPS locations were checked against the field logs and plotted using GIS software to verify locations.
	<ul style="list-style-type: none"> Discuss any adjustment to assay data. 	No adjustment or calibrations were made to any assay data presented.
Location of data points	<ul style="list-style-type: none"> Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. 	Drill hole locations were initially derived from a hand held Garmin 72h GPS units, with an average accuracy of ±3m. All collars were then surveyed using a differential GPS with an accuracy of 0.1m
	<ul style="list-style-type: none"> Specification of the grid system used. 	The grid system is MGA GDA94, zone 50, all easting's and northing's are reported in MGA co-ordinates

	<ul style="list-style-type: none"> Quality and adequacy of topographic control. 	SRTM90 data is used to provide topographic control and is regarded as being adequate for early stage exploration and this is being corrected with the results from the differential surveying of the drill-hole collars which has an accuracy on the height of 0.1m
Data spacing and distribution	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results. 	The drilling is located on sites spaced approximately on a 100m grid over an area of outcropping mapped mineralization.
	<ul style="list-style-type: none"> Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. 	The 200m spaced drilling allowed the generation of an Inferred Resource.
	<ul style="list-style-type: none"> Whether sample compositing has been applied. 	Sample results represent 1m interval reverse circulation drill-chips and samples have not been composited.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 	Mineralization is contained within a sub-horizontal sheet and the vertical drill-holes and associated sampling collects representative material through the mineralized zone.
	<ul style="list-style-type: none"> If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	The drill orientation was selected to minimise any sampling bias.
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	Samples are collected, labelled and transported by Coziron Geologists to Toll-Express in Karratha from where they are transported directly to Ultratrace laboratories in Perth.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	No audits or reviews of the sampling techniques and data have been obtained.
Section 2 Reporting of Exploration Results		
Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. 	All exploration licenses and prospecting licenses owned 85% by Zanthus Resources Ltd and 15% by ZanF Pty Ltd. The tenements are covered by the Kuruma Marthudunera Native Title Claim and relevant heritage agreements are in place.
	<ul style="list-style-type: none"> The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	The tenements are in good standing and no known impediments exist.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	In 1990-1991, Aberfoyle Resources held tenements covering the Ashburton Trough which partially overlapped Yarraloola. They collected 26 rock-chip and 73 stream sediment samples for gold and base-metal exploration but encountered no significant results and surrendered the ground.
		In 1991-1992, Poseidon Exploration Ltd held exploration tenements covering the Ashburton Trough which partially overlapped Yarraloola for base-metals, gold and iron-ore. They collected 54 rock-chips, 236 soil samples, 492 stream sediment samples and completed 159 RAB holes for 2410m but encountered no significant mineralisation and surrendered the tenements.

		<p>In 1997-1998, Sipa Resources NL held tenements over the Ashburton Trough that partially covered Yarraloola for gold and base-metals. A field trip after the interpretation of LANDSAT and air-photos collected six rock-chip samples which failed to detect mineralisation and the tenements were surrendered.</p>
		<p>In 2005-2009, Red Hill Iron Ltd held a tenement 15km northwest of Pannawonica which partially overlapped Yarraloola for gold and base-metal prospectivity. Following an aeromagnetic survey and air-photo interpretation, 16 rock-chips and 207 soil samples were collected but no targets were generated and the ground was surrendered.</p>
Geology	<ul style="list-style-type: none"> • <i>Deposit type, geological setting and style of mineralisation.</i> 	<p>The eastern section of the Yarraloola tenements covers Archaean-age chemical and clastic sediments overlying basalts in the Hamersley Basin. The western part of the tenements covers deformed Palaeoproterozoic mostly clastic sediments of the Ashburton Trough which are overlain by more recent undeformed detritus associated with the Carnarvon Basin. Sediments of the Hamersley and Carnarvon Basins are known to host economic deposits of iron-ore.</p> <p>The deposit described in this report is a Channel Iron Deposit (CID) - a flat-lying Tertiary-aged palaeochannel of pisolitic iron-stone (the Robe Pisolite).</p>
Drill hole Information	<ul style="list-style-type: none"> • <i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i> 	
	<ul style="list-style-type: none"> ○ <i>easting and northing of the drill hole collar</i> 	Drill hole collar Eastings and Northings are reported using map projection GDA Zone50, entered into an Access database and the map locations have been checked by the competent person.
	<ul style="list-style-type: none"> ○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> 	A differential GPS survey of the drill collars has provided elevation data on an approximately 100m spacing which has been integrated into the SRTM90 data.
	<ul style="list-style-type: none"> ○ <i>dip and azimuth of the hole</i> 	All holes are vertical.
	<ul style="list-style-type: none"> ○ <i>down hole length and interception depth</i> 	Down hole lengths and intercept depths are calculated from 1m interval samples that are progressively collected as the holes are drilled.
	<ul style="list-style-type: none"> ○ <i>hole length.</i> 	Hole lengths are reported both on the geological and driller logs, entered into the access database and have been checked by a competent person.
Data aggregation methods	<ul style="list-style-type: none"> • <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i> 	Minimum intercept widths are defined as drill intervals greater than 5m with samples reporting Fe>55%. Some intercepts include a maximum of 2m of samples with Fe<55%. Intercept values are numerical averages of the relevant 1m sample results. No cutting of high grades has been used.
	<ul style="list-style-type: none"> • <i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i> 	All sample intervals used to calculate the intercepts are of equal length.

	<ul style="list-style-type: none"> The assumptions used for any reporting of metal equivalent values should be clearly stated. 	No metal equivalents are presented
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. 	The vertical drill-holes are designed to intercept the true widths of the horizontally-oriented sheets of pisolitic iron-stone mineralization.
	<ul style="list-style-type: none"> If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known'). 	The down-hole widths are regarded as true widths of the mineralization.
	<ul style="list-style-type: none"> Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	A map of drill-hole locations is shown in Figure 1. Representative geological cross sections are shown in Figures 2 and 3.
Diagrams	<ul style="list-style-type: none"> Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	Refer to the maps and plans in body of text. There are insufficient results at this stage to generate cross-sections.
Balanced reporting	<ul style="list-style-type: none"> Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	Intervals of samples with Fe>50% and the trace elements appropriate to the description of pisolitic iron-stone are reported.
Other substantive exploration data	<ul style="list-style-type: none"> The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). 	Infill, extensional and diamond drilling are being planned.
Further work	<ul style="list-style-type: none"> Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	Areas of outcropping mineralization have been identified in Fig1.

SECTION 3 ESTIMATION AND REPORTING OF MINERAL RESOURCES		
Criteria	JORC Code explanation	Commentary
Database integrity	<i>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</i>	Assay data has been supplied by the laboratory in both excel format and as printed certificates for verification. Data in digital format is electronically loaded directly into an Access database to prevent transcription errors.
	<i>Data validation procedures used.</i>	Data tables were periodically compared to results published in the assay certificates to ensure data integrity. Sample outliers were routinely compared to assay certificates as well.
Site visits	<i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i>	No site visit was undertaken by the Competent Person responsible for the Resource Estimate.
	<i>If no site visits have been undertaken indicate why this is the case.</i>	The site is currently closed due to seasonal weather conditions.
Geological interpretation	<i>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</i>	There is a reasonable level of confidence in the geological interpretation due to the consistent drilling results and the outcropping geology. Wireframes are used to constrain the estimation and are based on drill hole intercepts and geological boundaries. All wireframes are constructed to 55% Fe _{ca} cut-off grades for shape consistency.
	<i>Nature of the data used and of any assumptions made.</i>	The mineralisation is generally quite consistent and drill intercepts clearly define the shape of the mineralised body with limited options for large scale alternate interpretations.
	<i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i>	The controls on and interpretation of mineralisation is relatively straightforward and no alternative interpretations have been considered.
	<i>The use of geology in guiding and controlling Mineral Resource estimation.</i>	Wireframes are used to constrain the estimation and are based on drill hole intercepts and geological boundaries.
	<i>The factors affecting continuity both of grade and geology.</i>	Wireframes are constructed to 55% Fe _{ca} cut-off grade for shape consistency.
Dimensions	<i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource</i>	The Mesa Robe deposit has a total strike length of 1400 m, across strike width of 800 m and extend vertically for approximately 70 m below surface.

<i>Estimation and modelling techniques</i>	<p><i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i></p>	<p>Grade estimation using Ordinary Kriging (OK) was completed using Surpac software for seven elements; Fe, SiO₂, Al₂O₃, TiO₂, LOI, P and S. Drill grid spacing was between 100 m and 200 m.</p> <p>Variogram orientations were largely controlled by the strike of mineralisation and downhole variography. Variograms for estimation were determined individually for each element.</p> <p>Other estimation parameters, such as search distance, minimum and maximum sample numbers was derived from KNA. Two search domains were utilised to account for the change in direction of the channel to the north.</p>
	<p><i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></p>	<p>There has been no previous resource estimation on the Mesa Robe Project, hence no comparisons are available.</p> <p>The resource model has not been compared to any reconciliation data.</p>
	<p><i>The assumptions made regarding recovery of by-products.</i></p>	<p>No assumptions have been made regarding recovery of any by-products.</p>
	<p><i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</i></p>	<p>Phosphorous and sulphur are the only deleterious element estimated.</p>
	<p><i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></p>	<p>The block model dimensions and parameters were based on the geological boundaries and average drill grid spacing. Sub-blocks were used to ensure that the block model honoured the domain geometries and volume. Block estimates were controlled by the original parent block dimensions.</p> <p>The individual parent block dimensions were 100 mE by 100 mN by 5 mRL, with sub-blocking to 25 mE by 25 mN by 1.25 mRL.</p> <p>Estimation into parent blocks used a discretisation of 5 (X points) by 5 (Y points) by 2 (Z points) to better represent estimated block volumes.</p>
	<p><i>Any assumptions behind modelling of selective mining units.</i></p>	<p>No selective mining units were modelled in this estimate. It is assumed that the SMU is equal to the block model parent cell or smaller.</p>
	<p><i>Any assumptions about correlation between variables.</i></p>	<p>Multi-element analysis was conducted on the samples. There was a strong positive correlation between SiO₂ and Al₂O₃ and TiO₂. There was a strong negative correlation with Fe and SiO₂, Al₂O₃ and TiO₂.</p>

	<i>Description of how the geological interpretation was used to control the resource estimates.</i>	Drillhole sample data was flagged using domain codes generated from three dimensional mineralisation domains. Mineralisation domains were treated as hard boundaries in the estimation process.
	<i>Discussion of basis for using or not using grade cutting or capping.</i>	No top cuts or bottom cuts were required as all the elements had a low cv and there were no real distinct outliers.
	<i>The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.</i>	Model validation was carried out using visual comparisons between composites and estimated blocks, checks for negative or absent grades, and statistical comparison against the input drillhole data and graphical profile (swath) plots.
<i>Moisture</i>	<i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i>	Tonnages are estimated on a dry basis.
<i>Cut-off parameters</i>	<i>The basis of the adopted cut-off grade(s) or quality parameters applied</i>	The resource model is modelled to a nominal wireframe cut-off grade of 55% Fe _{ca} with a minimum width of 5 m to encapsulate the entire mineralised body.
<i>Mining factors or assumptions</i>	<i>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</i>	No minimum mining assumptions were made during the resource wireframing or estimation process. Mining parameters, including minimum width assumptions, will be applied during the conversion to Ore Reserves.
<i>Metallurgical factors or assumptions</i>	<i>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i>	No metallurgical factors or assumptions are made during the resource estimation process as this will be addressed during conversion to Ore Reserve. The resource block model has been populated with multi-element data which is required for the metallurgical analysis during the Ore Reserve process.
<i>Environmental factors or assumptions</i>	<i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made</i>	No environmental factors or assumptions are made during the resource estimation process.

Bulk density	<i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</i>	A bulk density of 2.6 was applied to the mineralised zones. This was determined via researched into other CID's in the Pilbara.
	<i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit,</i>	No bulk density measurements have been undertaken because suitable drill-core material is yet to be available.
	<i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i>	A bulk density of 2.6 is assumed for all mineralised material in the Resource Estimate.
Classification	<i>The basis for the classification of the Mineral Resources into varying confidence categories</i>	Classification of the resource models is based primarily on drill density and geological understanding.
	<i>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i>	The classification takes into account the relative contributions of geological and data quality and confidence, as well as grade confidence and continuity.
	<i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i>	The classification reflects the view of the Competent Person.
Audits or reviews	<i>The results of any audits or reviews of Mineral Resource estimates.</i>	This an updated Mineral Resource estimate has not been subjected to any independent audits or reviews.
Discussion of relative accuracy/confidence	<i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate</i>	The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the 2012 JORC Code. The statement relates to global estimates of tonnes and grade.
	<i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used</i>	The estimate is considered to be relevant to a global report of tonnage and grade.
	<i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available</i>	No mining has been undertaken on any of the resource and therefore there is no production data is available.