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27 February 2017

CARPENTARIA EXPLORATION LIMITED

Drilling success spurs threefold rise in Hawsons Indicated Resource

Highlights

- **Drilling success swells Indicated Resource for Hawsons Iron Project by 3.6 times, contributing 119 million tonnes (Mt) to a total resource of over 330Mt of contained concentrate at 69.7%Fe**
- **Conversion from Inferred to Indicated Resources an outstanding 96%, confirming Hawsons' continuity of mineralisation and boosting confidence in previously stated mining and processing assumptions**
- **Average deposit and concentrate grades are unchanged reconfirming that Hawsons Iron Project is capable of producing Hawsons Supergrade® concentrate, which would be the highest grade iron product on seaborne market**
- **Total resource provides potential for decades-long mining operation**
- **Upgraded resource to support new prefeasibility study, targeting 10Mtpa operation**

In a major boost for a decades-long new mining operation at Broken Hill, emerging iron producer Carpentaria Exploration Limited (ASX:CAP) announced today a significantly upgraded resource for its flagship Hawsons Iron Project after successful infill drilling.

The drilling programme conducted late last year targeted a resource upgrade capable of supporting a prefeasibility study at the project, which is located just 60 kilometres from Broken Hill.

Carpentaria's Managing Director, Quentin Hill said the resource upgrade had been a success, exceeding the target set for Indicated Resources and is a major step forward for Hawsons, boosting confidence in potentially the Silver City's biggest new mine.

"The size of the upgraded resource at 2.4 billion tonnes is globally significant, and the conversion rate of 96% from Inferred Resources to Indicated status is an outstanding result. Importantly, this increases confidence that similar conversion rates to higher categories can be achieved in future drilling," Mr Hill said.

"Carpentaria believes the current resource, with potentially over 11 years' worth of Indicated Resources, is capable of supporting a new prefeasibility study and the Company is committed to delivering this, in line with our plans for a major new mine."

An independent prefeasibility study by engineering company GHD is underway, which is expected to be completed by the end of the second quarter of this year.

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Importantly, the results and new estimate have also increased confidence in the previously stated potential for low-cost mining and processing methods at Hawsons, which also has the advantage of favourable access to existing rail, port and power infrastructure along with a skilled mining workforce at Broken Hill and the unique Hawsons Supergrade® product.

Mr Hill said the consistent results were very pleasing but not surprising, with the Company steadily bringing all elements of the project to the same level of confidence.

"We already have the port, rail, power and water solutions for the project at a prefeasibility level of understanding, in addition to processing and product marketing. Now the resource has been upgraded, we can focus on delivering a prefeasibility study, and attracting funding for additional development to the benefit of shareholders, end users and the local community of Broken Hill and South Australia," he said.

2017 Resource Estimate

The Indicated Resource at Hawsons has increased to 810 million tonnes (Mt) at 14.6% Davis Tube recovered magnetic fraction (DTR) for 119Mt of concentrate at 69.9% Fe (iron), an increase of nearly 3.6 times over the previous 227Mt at 16% DTR for 36Mt of concentrate, both at a 10% DTR cut-off (see note below).

The total resource at Hawsons has increased 6% to 2.4 billion tonnes at 14.1% DTR for 336Mt of concentrate at a 10%DTR cut-off grade over the March 2014 estimate (ASX Announcement 26 March 2014).

The grade of the resource has increased to 15.2% DTR from 14.9% DTR when described at 12% DTR cut-off grade (refer grade tonnage curve) but is otherwise unchanged after an approximately 40% increase in drilling data. This indicates stability in the metallurgical characteristics of the resource because the DTR is a metallurgical test, and therefore additional confidence in the representative nature of the test work done to date to produce Hawsons Supergrade® product at 70.3% Fe (refer ASX announcements dated 16 Feb 2016 and 14 October 2015).

The resource estimate was completed by independent geologists, H&S Consultants Pty Ltd (Table 1).

Category	Mt	DTR %	DTR Mt	Fe Head %	Concentrate Grades						
					Fe %	Al2O3 %	P %	S %	SiO2 %	TiO2 %	LOI %
Indicated	810	14.6	119	17.5	69.9	0.19	0.004	0.002	2.61	0.03	-3.04
Inferred	1,570	13.9	217	16.8	69.6	0.20	0.004	0.003	2.94	0.03	-3.04
Total	**2,380**	**14.1**	**336**	**17.1**	**69.7**	**0.20**	**0.004**	**0.002**	**2.83**	**0.03**	**-3.04**

Table 1 – Hawsons Iron Project 2017 Resource Estimate , H&S Consultants

The resource dimensions are ~3km long x 1km wide x 400m deep with a relatively small amount of internal waste. This provides large mining widths and lengths and very low strip ratios that in turn allows for best use of less selective bulk mining methods such as in pit conveying and potential for lower costs (Figure 1). The deposit shows also shows a high degree of continuity and relatively simple geometry, which also contributes to lower mining costs (Figure 2).

Importantly the distribution of the Indicated Resource is such that it can be targeted early in the mine plan to support a prefeasibility study (Figures 3 and 4).

*The Hawsons resource estimate has previously been reported (March 26, 2014) at a 12%DTR cut-off grade. However, using a 10% DTR cut off aligns the reporting with the cut-off grade used in earlier mining studies. DTR- Davis Tube Recovery, the standard test to determine recoverable concentrate using magnetic separation

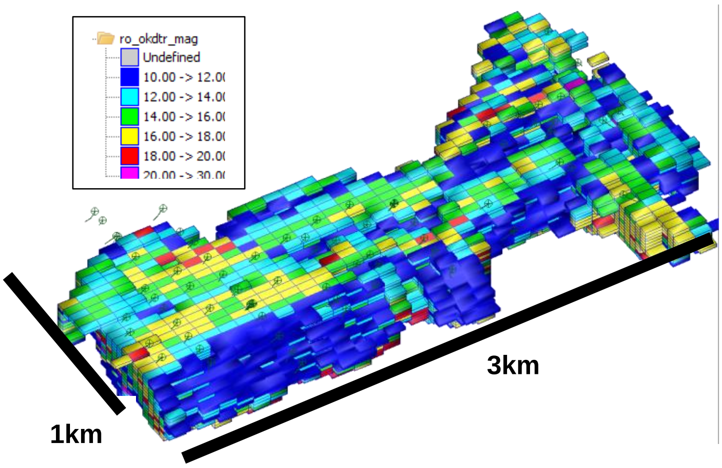

Figure 1 Hawsons Resource Estimate - DTR Block Grade Distribution – 10% DTR cut-off

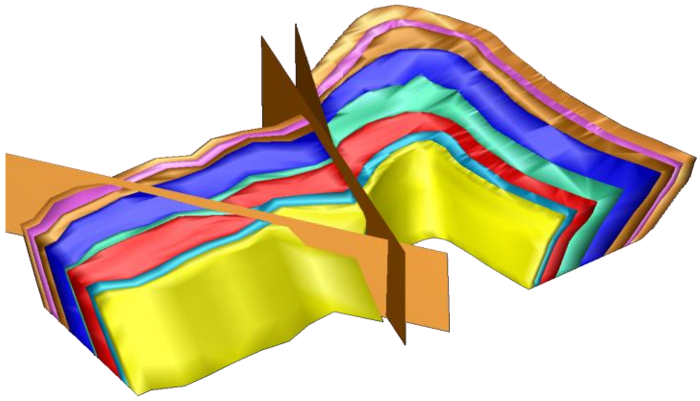

Figure 2 Hawsons 3D geology, purple, dark blue, green and red are mineralised

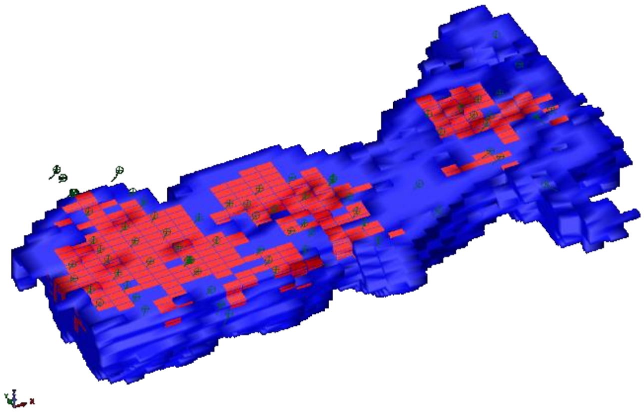

Figure 3 Spatial distribution of Hawsons Indicated (red) and Inferred Resources (blue)

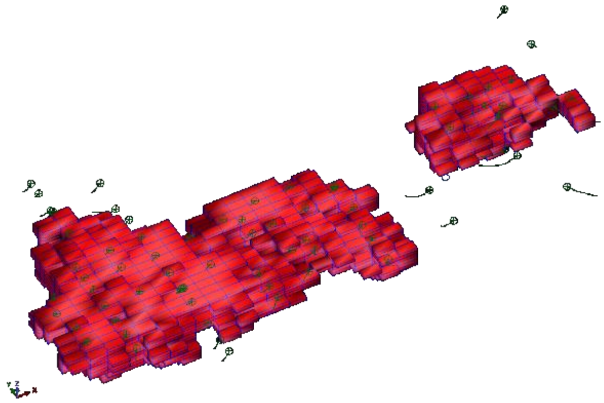

Figure 4 Spatial distribution of Hawsons Indicated Resources

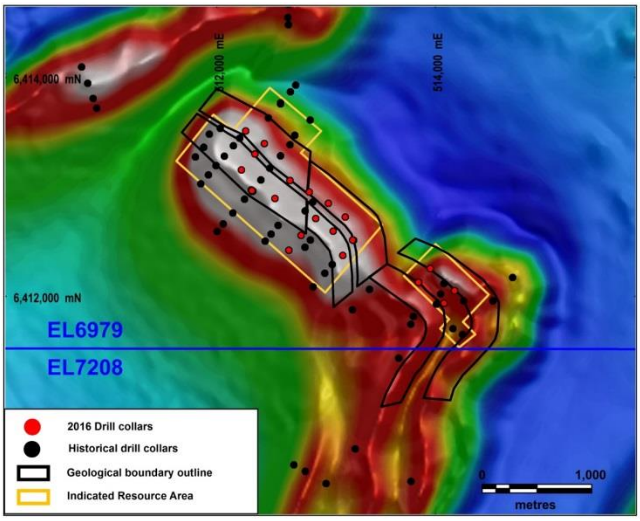

Figure 5 Hawsons Iron Project drill hole location and Indicated Resource area over magnetic image

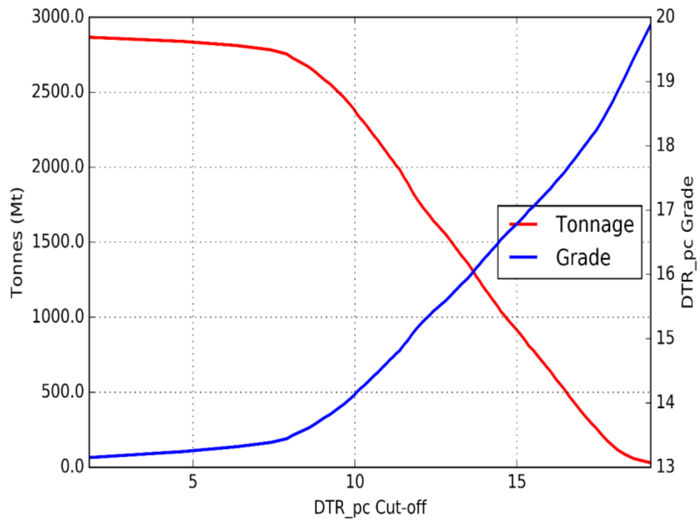

Figure 6 Hawsons Iron Project grade- tonnage curves

The resource modelling has also identified additional mineralisation and H&S has outlined an Exploration Potential of 0.5 to 1Bt with a DTR grade range of 13 to 14% with the likely concentrate to be composed of 69-69.7% Fe, 0.2 to 0.3% Al_2O_3, 0.0035 to 0.0055% P, 0.0025 to 0.0035% S, 3 to 4% SiO_2, 0.25 to 0.35% TiO_2 and -2.85 to -3% LOI. This allows for an estimate of 65-140mt of magnetite concentrate product in this category located adjacent to the resource.

The potential quantity and grade of the exploration potential is conceptual in nature and there has been insufficient exploration to define a Mineral Resource. It is uncertain if further exploration will result in the determination of a Mineral Resource. The quoted magnetite grades may not be represented with any subsequent exploration including drilling and the depth of the weathered overburden may be variable.

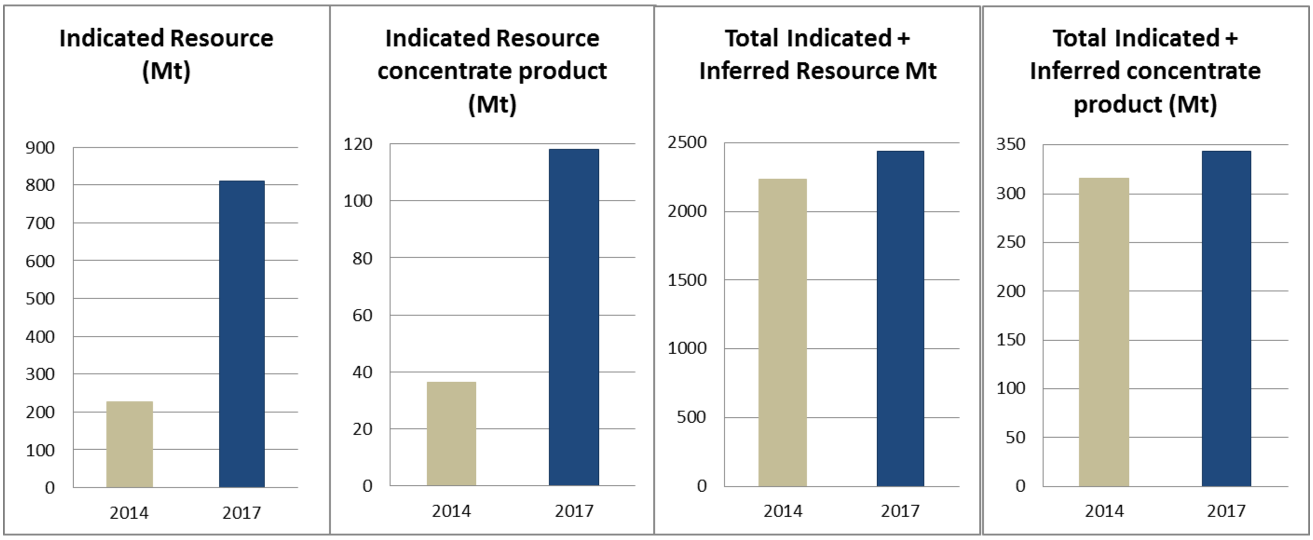

Figure 7 Hawsons Iron Project graphs of the resource upgrade

About Hawsons Iron Project

The Hawsons Iron Project joint venture (Carpentaria 64%, Pure Metals P/L 36%) is currently undertaking development studies based on the low-cost, long-term supply of a high grade, ultra-low impurity iron concentrate to a growing premium iron market, including the direct reduction market.

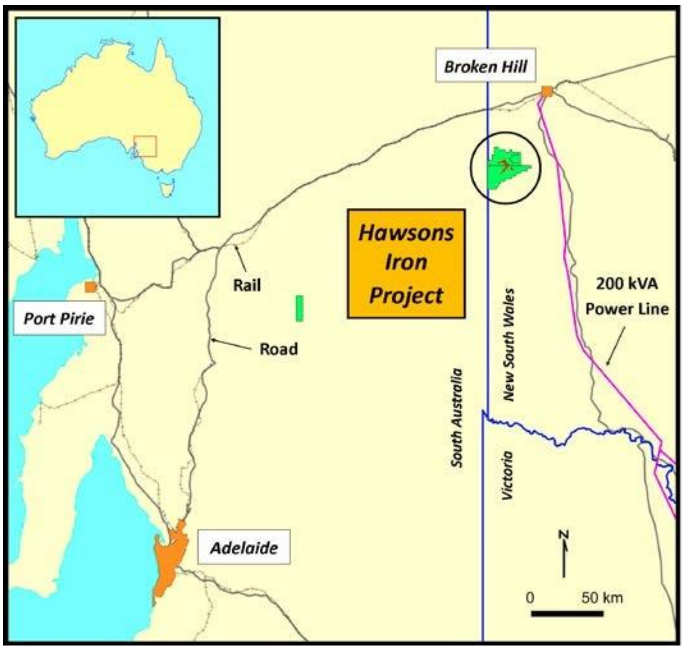

Figure 8 Location of Hawsons Iron Project and Port Pirie

The project has a clear technical and permitting pathway. It is located 60km southwest of Broken Hill, an ideal position for mining operations with existing power, rail and port infrastructure available for a conceptual 10 Mtpa start-up operation. A mining lease application has been lodged.

The project's soft rock is different from traditional hard rock magnetite and allows a very different approach to the typical magnetite mining and processing challenges (both technical and cost-related). The soft rock enables simple liberation of a Supergrade magnetite product without complex and expensive processing methods.

The Company is targeting the growing premium high grade product market, both pellets and pellet feed, which is separate to the bulk fines market, and believes its targeted cost structure is very competitive and profitable at consensus long-term price forecasts for this sector. It has secured offtake intent from blue chip companies Bahrain Steel, Emirates Steel, Formosa Plastics, Mitsubishi RtM and Gunvor.

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The information in this report that relates to Exploration Results, Exploration Targets and Resources is based on information evaluated by Mr Q.S. Hill who is a member of the Australian Institute of Geoscientists (MAIG) and who has sufficient experience 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 (the "JORC Code"). Mr Hill is a Director of Carpentaria Exploration Ltd and he consents to the inclusion in the report of the Exploration Results in the form and context in which they appear.

The data in this report that relates to Mineral Resource Estimates for the Hawsons Magnetite Project is based on information evaluated by Mr Simon Tear who is a Member of The Australasian Institute of Mining and Metallurgy (MAusIMM) and who has sufficient experience 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 (the "JORC Code"). Mr Tear is a director of H & S Consultants Pty Ltd and he consents to the inclusion in the report of the Mineral Resource in the form and context in which they appear.

JORC Code, 2012 Edition – Table 1 Hawsons Iron Project

Section 1 Sampling Techniques and Data – 2010 Campaign

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. 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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.*	• A total of 52 drillholes were drilled by CAP. Drillholes were a mixture of reverse circulation (RC) from surface, diamond tails to RC precollars (PD) and diamond from surface (DD). • All sampling was to industry standard • RC drillholes were drilled to obtain 1m samples with sample compositing applied to obtain a 2m to 10m 3kg sample which was pulverized to produce 150g aliquot for X-Ray Fluorescence (XRF) and Davis Tube Recovery (DTR) analysis. Hand held magnetic susceptibility measurements and geological logging was completed for every metre of every drillhole. • Diamond drillhole core sampling process involved; orientation, metre marking, magnetic susceptibility measurements (every 0.5m), core recoveries, rock quality designation (RQD) and geological logging (every metre). The core was then photographed and cut into halves to produce an 8m composite sample (predominantly NQ core) which was pulverized to produce a 150g aliquot for XRF and DTR analysis. • Geoscience Associates carried out gyroscope surveying on all drillholes. Surveys were conducted on open hole. The geophysical logging was completed for a majority of holes and consisted of natural gamma, magnetic susceptibility, density and calliper readings • CAP has a suite of documented procedures for drilling related activities • Consistency of sampling method maintained. • Sampling technique is considered appropriate for deposit type
Drilling techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).*	• Drilling is a combination of RC, PD and DD • Industry standard drilling rigs suitable for the required task were used. • RC drilling was carried out using a truck mounted Schramm and truck mounted KWL 1600H. Both used 4.5 inch rods and 5.5inch face bits. • PD and DD drilling was carried out using a truck mounted UDR650 using NQ2 and standard HQ diameters. When

Criteria	JORC Code explanation	Commentary
		orientated the Ace Core orientation tool was used.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	• RC sampling done on 1m intervals into green plastic bags. Sample recoveries for RC were visually estimated by the geologist at the time of drilling and recorded, • Because no numerical RC chip recovery data exists it is not possible to conclude if there is a relationship between sample recovery and mineral grade • Core recoveries were recorded by measuring the length of core recovered in each run divided by the drilled length of the individual core runs; average recovery >97%. • A hand held XRF orientation study concluded that there was no sample bias with loss or gain of fine/coarse material. • Negligible wet samples in the RC drilling
Logging	• *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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Every RC, PD and DD drillhole was logged by a geologist & entered into Excel spread sheets recording; Recovery, Moisture content, Magnetic susceptibility, Oxidation state, Colour, % of Magnetite, Gangue Min, Sulphide Min, Veins and Structure. Data was uploaded to a customised Access database. • Logging used a mixture of qualitative and quantitative codes • All RC sample metres were sub-sampled, sieved, washed and stored in a labelled plastic chip tray. All remaining drill core after sampling was stored in labelled plastic core trays on site. • All drill core was photographed wet and dry after logging and before cutting. • All relevant intersections were logged • Geological logging was of sufficient detail to allow the creation of a geological model.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.*	• All RC samples were composited using the spear sampling method. The spear method was concluded to be adequate based on the results of a hand held XRF orientation exercise. The green plastic bags were speared from each angle to the bottom of the bag to ensure a representative sample. • DD core was cut into half core using a brick saw and diamond blade. The core was cut using the orientation line or perpendicular to bedding. Half core was sent to ALS for analysis, whilst remaining half core was retained for reference. • Field duplicates, blanks (river sand) and certified standards were used for quality control measures • All sampling methods and samples sizes are deemed

Criteria	JORC Code explanation	Commentary
	• *Whether sample sizes are appropriate to the grain size of the material being sampled.*	appropriate

Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*
	• *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.*
	• *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*
		• Sample Prep
		  • Crush the sample to 100% below 3.35 mm.
		  • A 150 g sub-sample for pulverizing in a C125 ring pulveriser (record weight) – DTR SAMPLE.
		  • Initially pulverize the 150 g sample for nominal 30 seconds – the sample is unusually soft for a ferro-silicate rock!
		  • Wet screen the DTR sample at 38 micron pressure filter and dry, screen at 1 mm to de-clump and re-homogenize.
		  • Record the oversize weights – if less than approximately 20 g is oversize, stop the procedure – failure.
		  • If failure - select another 150 g DTR Sample and reduce the initial pulverization time by 5 secs, repeat until initial grind pass returns greater than approximately 20 g oversize. Once achieved retain the – 38 micron undersize.
		  • Regrind only the oversize for 4 seconds of every 5 g weight of oversize.
		  • Repeat the wet screening, drying, de-clumping & weighing stages until less than 5g above 38micron remains.
		  • Ensure the remaining < 5 g oversize is returned back into the previously retained -38 micron product.
		  • Report the times and weights for each grind pass phase.
		  • Combine and homogenize all retained -38 micron aliquots and <5 g oversize –final pulverized product. Sub-sample the final pulverized product to give a 20 g feed sample for DTR work and a ~10 g sample for HEAD analysis via XRF fusion.
		  • The objective of the pulverizing procedure is to achieve a nominal P80 of approximately 25 micron for the sample.
		• Davis Tube Recovery (DTR) Analysis
		  • Pulveriser bowl 150 ml
		  • Stroke Frequency - 60/minute
		  • Stroke length – 38mm
		  • Magnetic field strength – 3000 gauss
		  • Tube Angle – 45 degrees
		  • Tube Diameter – 40mm
		  • Water flow rate – 540-590 ml/min
		  • Washing time 20 minutes

Criteria	JORC Code explanation	Commentary
		• Collect the concentrate in small collector (magnetic fraction) and discard tails. • X-Ray Fluorescence (XRF) Assaying • Using the Head Sample, analyse by XRF fusion method for the following elements: Al2O3 %, As % , Ba % , CaO % , Cl % , Co % , Cr % , Cu % , Fe % , K2O % , MgO % , Mn % , Na2O % , Ni % , P % , Pb % , S % , SiO2 % , Sn % , Sr % , TiO2 % , V % , Zn % , Zr % & LOI. • Dry the DTR concentrate and report the weight of the concentrate as a percentage of measured feed and report – DTR Mass Recovery. • Using the DTR concentrate sample analyse by XRF fusion method for the following elements: Al2O3 %, As % , Ba % , CaO % , Cl % , Co % , Cr % , Cu % , Fe % , K2O % , MgO % , Mn % , Na2O % , Ni % , P % , Pb % , S % , SiO2 % , Sn % , Sr % , TiO2 % , V % , Zn % , Zr % & LOI. • JH8 and KT5 magnetic susceptibility meters were used to record magnetic susceptibility. • A laboratory standard was used each day to calibrate each metre. A Niton XL3T Gold hand held XRF machine was used. A laboratory analysed sample was used to calibrate for Fe. • QAQC procedures consisted of using field duplicates, triplicates, blanks and certified standards at a frequency of 5 per 100 samples. • Internal QAQC measures were also undertaken by ALS. • Satisfaction of precision, accuracy and any lack of bias was made by Keith Hannan of Geochem Pacific Pty Ltd, an independent Geochemist/consultant. • All sampling and assay methods and samples sizes are deemed appropriate.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Data was stored in a customised Access database • Twin DD holes were used to verify the results for RC holes and the DTR performance. • No Adjustments were made to raw assay data. • Density data from the downhole geophysics was adjusted upwards by 5.2% based on check density measurements using core with the immersion in water (Archimedes) method
Location of	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations*	• Drill holes collars were located by a local surveyor using a Differential GPS with accuracy to less than one metre.

Criteria	JORC Code explanation	Commentary
data points	*used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Coordinates were supplied in GDA 94 – MGA Zone 54. • Down hole surveys were recorded using a gyroscope due to the highly magnetic nature of the deposit. • Topographic control was collected using a high resolution Differential GPS by a local surveyor • Location methods used to determine accuracy of drillhole collars are considered appropriate
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	• The deposit is drilled at a nominal spacing of 150m to 400m in section and plan. • The drill spacing was deemed adequate for the interpretation of geological and grade continuity noting the homogeneity of the style of mineralisation. • Drill samples were composited under geological control with an interval range of 2 to 10m with an average length of 8m,
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	• Drilling was completed at -60^{o}, generally sub-perpendicular to the bedding, which is the primary control to the magnetite mineralisation. • Different azimuths were used to reflect the changing strike of the beds associated with folding of the sediments and were designed to maintain the steep angle to the bedding • Locally holes suffered significant deviation to the right (east) with depth. This affected the lower Unit 2 more than the upper Unit 3 • Drilling orientations are considered appropriate with no bias.
Sample security	• *The measures taken to ensure sample security.*	• All samples were stored on site under CAP personnel supervision until transporting to the CAP Broken Hill office • Intensity of magnetite mineralisation is difficult to see visually but detectable using a magnet.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Sample procedures and results were systematically reviewed by CAP personnel. • The QAQC data was reviewed by CAP staff • The QAQC data was also reviewed by Keith Hannan of Geochem Pacific Pty Ltd, an independent Geochemist/consultant who concluded: o 1. The duplication procedure for composite RC samples, by careful spearing, is demonstrably effective; o 2. An absence of mismatches between duplicates and the consistency of analytical results for CAP blanks and the CAP certified standards indicate that sample handling procedures

Criteria	JORC Code explanation	Commentary
		in the field for this complex program are well executed. o 3. Based on the laboratory chemical analyses and derived parameters such as magnetite content, the CAP monitor standard is chemically and mineralogically uniform and therefore 'fit-for-purpose'. o 4. The high degree of correlation between the averaged field portable (FP) XRF readings for Fe on primary bags of RC spoil and the laboratory analyses of Fe on the much smaller composite samples derived thereof, indicates that downhole Fe distributions are successfully mapped by FP XRF and that the compositing procedure is effective.

Section 1 Sampling Techniques and Data – 2016 Campaign

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *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.*	• A total of 20 drillholes were drilled by CAP. All results have been received. Drillholes were reverse circulation (RC) from surface. • All sampling was to industry standard • RC drillholes were drilled to obtain 1m samples with sample compositing applied to obtain a 5m 6kg sample which was crushed to produce 150g aliquot for X-Ray Fluorescence (XRF) and Davis Tube Recovery (DTR) analysis. Magnetic susceptibility measurements and geological logging was completed for every metre of every drillhole. • Endeavour Geophysics carried out down hole geophysical logging and gyroscope surveying on all drillholes. Surveys were conducted on open hole. The geophysical logging consisted of natural gamma, magnetic susceptibility, density and caliper readings. • CAP has a suite of documented procedures for drilling related activities • Consistency of sampling method maintained. • Sampling technique is considered appropriate for deposit type

Drilling techniques	• *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).*	• Drilling was RC. • RC drilling was carried out using truck mounted Sandvik DE 840 (UDR1200), UDR1000 and Metzke rigs. All used 4.5 inch rods and 5 ½ inch face bits.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	• RC sampling done on 1m intervals into green plastic bags. Sample recoveries for RC were visually estimated by the geologist at the time of drilling and recorded for every metre, calculation of actual and theoretical mass concluded that wet samples averaged 40% to 50% recovery where dry samples were 80% - 90% recovery. No bias of mineral grade linked to recovery was found. • Twin RC and diamond holes have shown no bias in sampling based on drill type.

Criteria	JORC Code explanation	Commentary
		• A hand held XRF orientation study concluded that there was no sample bias with loss or gain of fine/coarse material. • <5% wet samples in the RC drilling
Logging	• *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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Every RC drillhole was logged by a geologist & entered into Excel spread sheets recording; Recovery, Moisture content, Magnetic susceptibility, Oxidation state, Colour, % of Magnetite, Gangue Min, Sulphide Min, Veins and Structure. Data was uploaded to a customised Access database. • Logging used a mixture of qualitative and quantitative codes • All RC sample metres were sub-sampled, sieved, washed and stored in a labelled plastic chip tray. All remaining drill core after sampling was stored in labelled plastic core trays on site. • All relevant intersections were logged • Geological logging was of sufficient detail to allow the creation of a geological model.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• RC samples were composited using the riffle split method. A 1/16 split was taken from the rig every metre then composited by splitting again using a 50/50 riffle splitter. • Field pairs, blanks (washed sand) and certified standards we used for quality control measures • All sampling methods and samples sizes are deemed appropriate

Quality of assay data and	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*
	• *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*
		• Pulverizing
		  • Crush the sample to 100% below 3.35 mm.
		  • Separate a sample of 150 g for pulverizing in a C125 ring pulverizer (record weight) – DTR SAMPLE.
		  • Initially pulverize the 150 g sample for nominal 30 seconds – the sample is unusually soft for a ferro-silicate rock!

Criteria	JORC Code explanation	Commentary
laboratory tests	*derivation, etc.* • *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.*	• Wet screen the DTR sample at 38 micron pressure filter and dry, screen at 1 mm to de-clump and re-homogenize. • Record the oversize weights – if less than approximately 20 g is oversize, stop the procedure – failure. • If failure - select another 150 g DTR Sample and reduce the initial pulverization time by 5 secs, repeat until initial grind pass returns greater than approximately 20 g oversize. Once achieved retain the – 38 micron undersize. • Regrind only the oversize for 4 seconds of every 5 g weight of oversize. • Repeat the wet screening, drying, de-clumping & weighing stages until less than 5g above 38micron remains. • Ensure the remaining < 5 g oversize is returned back into the previously retained -38 micron product. • Report the times and weights for each grind pass phase. • Combine and homogenize all retained -38 micron aliquots and <5 g oversize –final pulverized product. Sub-sample the final pulverized product to give a 20 g feed sample for DTR work and a ~10 g sample for HEAD analysis via XRF fusion. • The objective of the pulverizing procedure is to achieve a nominal P80 of approximately 25 micron for the sample. • Davis Tube Recovery (DTR) Analysis • Pulverizer bowl 150 ml • Stroke Frequency 60/minute • Stroke length – 38mm • Magnetic field strength – 3000 gauss • Tube Angle – 45 degrees • Tube Diameter – 40mm • Water flow rate – 540-590 ml/min • Washing time 20 minutes • Collect the concentrate in small collector (magnetic fraction) and discard tails. • X-Ray Fluorescence (XRF) Assaying • Head Sample • Using the Head Sample, analyse by XRF fusion method for the following elements: Al2O3 %, As % , Ba % , CaO % , Cl

Criteria	JORC Code explanation	Commentary

		Na_2O % , Ni % , P % , Pb % , S % , SiO_2 % , Sn % , Sr % , TiO_2 % , V % , Zn % , Zr % & LOI.
		• DTR Concentrate Sample
		  • Dry the DTR concentrate and report the weight of the concentrate as a percentage of measured feed and report – DTR Mass Recovery.
		  • Analyse the concentrate by XRF fusion method for the following elements: Al_2O_3 %, As % , Ba % , CaO % , Cl % , Co % , Cr % , Cu % , Fe % , K_2O % , MgO % , Mn % , Na_2O % , Ni % , P % , Pb % , S % , SiO_2 % , Sn % , Sr % , TiO_2 % , V % , Zn % , Zr % & LOI.
		• Head Satmagan analysis was conducted on every sample.
		• JH8 and KT5 magnetic susceptibility metres were using to record magnetic susceptibility. A laboratory standard was used each day to calibrate each metre. A Niton XL3T Gold hand help XRF machine was used. A laboratory analysed sample was used to calibrate for Fe.
		• QAQC procedures consisted of using field pairs, blanks, certified standards and umpire lab samples (Intertek) at a frequency of 10 per 100 samples.
		• Internal QAQC measures were also undertaken by ALS in the form of lab repeats, lab duplicates and the use of internal standards.
		• An independent review of the QAQC procedures and data was completed by Keith Hannan of Geochem Pacific Pty Ltd, an independent Geochemist/consultant. It was concluded that the data was fit for purpose for the resource modelling with lack of bias and acceptable levels of precision and accuracy.
		• All sampling and assay methods and samples sizes are deemed appropriate.

Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Data was stored in an Access database • Twin RC of DD holes were used to verify the results for RC holes and the DTR performance. • A rigorous QAQC program was completed by Keith Hannan of Geochem Pacific, checking all aspects of sample preparation and analysis. • No adjustments were made to raw assay data and lab certificates were presented to verify the data.
Location of data points	• *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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Drill holes collars were located using a Differential GPS accuracy to less than one metre by a local surveyor. • Coordinates were supplied in GDA 94 – MGA Zone 54. • Down hole surveys were recorded using a gyroscope due to the highly magnetic nature of the deposit.

Criteria	JORC Code explanation	Commentary
		• Topographic control was collected using a high resolution Differential GPS by a local surveyor • Location methods used to determine accuracy of drillhole collars is considered appropriate
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	• The deposit is drill at a nominal spacing of 150m to 200m in section and plan. • The drill spacing was deemed adequate for the interpretation of geological and grade continuity noting the homogeneity of the deposit and style of mineralisation. • Drill samples were composited at a nominal 5m
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	• Drilling was completed at -60$_o$, generally sub-perpendicular to the bedding, which is the primary control to the magnetite mineralisation. • Different azimuths were used to reflect the changing strike of the beds associated with folding of the sediments and were designed to maintain the steep angle to the bedding • Locally holes deviated to the right (east) with depth. • Drilling orientations are considered appropriate with no bias.
Sample security	• *The measures taken to ensure sample security.*	• All samples were stored on site under company personnel supervision until transporting to the companies Broken Hill office • Intensity of magnetite mineralisation is difficult to see visually but detectable using a magnet.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	o Sample procedures and results were reviewed by company personnel systematically. The QAQC data is being reviewed by Carpentaria staff and an external consultant.

Section 2 Reporting of Exploration Results – 2010 Campaign

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *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.* • *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 Hawsons Magnetite project is located in Western NSW, 60 km southwest of Broken Hill. The deposit is 30km from the Adelaide-Sydney railway line, a main highway and a power supply. • The project is under a Joint Venture between Carpentaria Exploration Ltd (CAP) and Pure Metals Pty Ltd where CAP holds 64% and Pure Metals 36% equity in the project. Pure Metals currently manage the project. • The project area is wholly within Exploration Licences (ELs) 6979, 7208 & 7504 which are 100% owned by CAP. • Licence conditions for all ELs have been met and are in good standing. • An application for a Mining Lease (ML) was lodged with the NSW Trade & Investment Department in October 2013 and Carpentaria is not aware of any impediments to obtaining a mining lease.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• In 1960 Enterprise Exploration Company (the exploration arm of Consolidated Zinc) outlined a number of track-like exposures of Neoproterozoic magnetite ironstone (+/- hematite) which returned a maximum result of 6m at 49.1% Fe from a cross-strike channel sample. No drilling was undertaken by Enterprise. • CRAE completed five holes within EL 6979 seeking gold

Criteria	JORC Code explanation	Commentary
		mineralisation in a second-order linear magnetic low interpreted to be a concealed faulted iron formation within the hinge of the curvilinear Hawsons' aeromagnetic anomaly. CRAE's program failed to locate significant gold or base metal mineralisation but the drilling intersected concealed broad magnetite ironstone units interbedded with diamictite adjacent to the then untested peak of the highest amplitude segment of the Hawsons aeromagnetic anomaly.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Hawsons Magnetite Project is situated within folded, upper greenschist facies Neoproterozoic rocks of the Adelaide Fold Belt. The Braemar Facies magnetite ironstone is the host stratigraphy and comprises a series of strike extensive magnetite-bearing siltstones generally with a moderate dip (circa -55^{o}). The airborne magnetic data clearly indicates the magnetite siltstones as a series of parallel, high amplitude magnetic anomalies. Large areas of the Hawsons prospective stratigraphy are concealed by transported ferricrete and other younger cover. The base of oxidation due to weathering over the prospective horizons is estimated to average 80m from surface. • The Hawsons project comprises a number of prospects including the Core, Fold, T-Limb, South Limb and Wonga deposits. Resource Estimates have been generated for the Core and Fold areas which are contiguous. • The depositional environment for the Braemar Iron Formation is believed to be a subsiding basin, with initial rapid subsidence related to rifting possibly in a graben setting as indicated by the occurrence of diamictites in the lower part of the sequence (Unit 2). A possible sag phase of cyclical subsidence followed with deposition of finer grained sediments with more consistent, as compared to the diamictite units, bed thicknesses, style and clast composition (Unit 3). The top of the Interbed Unit marks the transition from high (Unit 2) to lower (Unit 3) energy sediment deposition • The distribution of disseminated, inclusion-free magnetite in the Braemar Iron Formation at Hawsons is related to the composition and nature of the sedimentary beds. The idioblastic nature of the of the magnetite is believed due to one or more of a range of possible processes including in situ recrystallisation of

Criteria	JORC Code explanation	Commentary
		primary detrital grains, chemical precipitation from seawater, permeation of iron-rich metamorphic fluids associated with regional greenschist metamorphism. Grain size generally ranges from 10microns to 0.2mm but tends to average around the 40microns. The sediment composition and grain size appear to provide the main control on the mineralisation. There is no evidence for structural control in the form of veins or veinlets coupled with the lack of a strong structural fabric. • In the majority of the Core and Fold deposits the units strike south east and dip between 45 and 65° to the south west. The eastern part of the Fold deposit comprises a relatively tight, synclinal fold structure resulting in a 90° strike rotation.
Drill hole Information	• *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:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• Exploration results not being reported
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Exploration results not being reported
Relationship between mineralisation widths and	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*	• Drilling has tended to be at a steep angle to the dip angle of the sedimentary beds.

Criteria	JORC Code explanation	Commentary
intercept lengths	• *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	
Diagrams	• *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.*	• Exploration results not being reported
Balanced reporting	• *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.*	• Exploration results not being reported
Other substantive exploration data	• *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.*	• A substantial amount of polished and thin section work has been completed on both RC chips and diamond core. This work has confirmed the nature and style of both the original sediment and the iron minerals including magnetite, hematite, chlorite and ferroan dolomite. • Downhole geophysics comprises magnetic susceptibility, gamma and density and has been completed for a majority of the holes. This has resulted in the definition of a magnetic (and density-related) stratigraphy that is coincident with a chronostratigraphic interpretation.
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Exploration results not being reported

Section 2 Reporting of Exploration Results – 2016 Campaign

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary

Mineral tenement and land tenure status	• *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.* • *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 Hawsons Magnetite project is located in Western NSW, 60 km southwest of Broken Hill. The deposit is 30km from the Adelaide-Sydney railway line, a main highway and a power supply. • The project is under a Joint Venture between Carpentaria Exploration Ltd (CAP) and Pure Metals Pty Ltd where CAP holds 64% and Pure Metals 36% equity in the project. Pure Metals currently manage the project. • The project area is wholly within Exploration Licences (ELs) 6979, 7208 & 7504 which are 100% owned by CAP. • Licence conditions for all ELs have been met and are in good standing. • An application for a Mining Lease (ML) was lodged with the NSW Trade & Investment Department in October 2013 and Carpentaria is not aware of any impediments to obtaining a mining lease.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• In 1960 Enterprise Exploration Company (the exploration arm of Consolidated Zinc) outlined a number of track-like exposures of Neoproterozoic magnetite ironstone (+/- hematite) which returned a maximum result of 6 m at 49.1% Fe from a cross-strike channel sample. No drilling was undertaken by Enterprise. • CRAE completed five holes within EL 6979 seeking gold mineralisation in a second-order linear magnetic low interpreted to be a concealed faulted iron formation within the hinge of the curvilinear Hawsons' aeromagnetic anomaly. CRAE's program failed to locate significant gold or base metal mineralisation but the drilling intersected concealed broad magnetite ironstone units interbedded with diamictite adjacent to the then untested peak of the highest amplitude segment of the Hawsons aeromagnetic anomaly.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Hawsons Magnetite Project is situated within folded, upper greenschist facies Neoproterozoic rocks of the Adelaide Fold Belt. The Braemar Facies magnetite ironstone is the host stratigraphy and comprises a series of narrow, strike extensive magnetite-

Criteria	JORC Code explanation	Commentary
		bearing siltstones generally with a moderate dip (circa 45º). The airborne magnetic data clearly indicates the magnetite siltstones as a series of parallel, narrow, high amplitude magnetic anomalies. Large areas of the Hawsons prospective stratigraphy are concealed by transported ferricrete and other younger cover. The base of oxidation due to weathering over the prospective horizons is estimated to average 80m in depth. • The Hawsons project comprises a number of prospects including the Core, Fold, T-Limb, South Limb and Wonga deposits. Resource Estimates have been generated for the Core and Fold areas which are contiguous. • The depositional environment for the Braemar Iron Formation is believed to be a subsiding basin, with initial rapid subsidence related to rifting possibly in a graben setting eg the diamictites in the lower part of the sequence. A possible sag phase of cyclical subsidence followed with deposition of finer grained sediments with more consistent, as compared to the diamictite units, bed thicknesses, style and clast composition. The top of the Interbed Unit marks the transition from high to lower energy sediment deposition • The distribution of disseminated, inclusion-free magnetite in the Braemar Iron Formation at Hawsons is related to the composition and nature of the sedimentary beds. The idioblastic nature of the of the magnetite is believed due to one or more of a range of possible processes including in situ recrystallisation of primary detrital grains, chemical precipitation from seawater, permeation of iron-rich metamorphic fluids associated with regional greenschist metamorphism . Grain size generally ranges from 10microns to 0.2mm but tends to average around the 40micron mark. The sediment composition and grain size appear to provide a control on the mineralisation. There is no evidence for structural control in the form of veins or veinlets coupled with the lack of a strong structural fabric. • In the majority of the Core and Fold deposit the units strike south east and dip between 45 and 65˚ to the south west. The eastern Fold deposit comprises a relatively tight synclinal fold structure resulting in a 90º strike rotation.

Criteria	JORC Code explanation	Commentary
Drill hole Information	• *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:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• Exploration results not being reported
Data aggregation methods	• *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.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Exploration results not being reported
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *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').*	• Drilling was planned to intersect the geology as close to perpendicular as possible to bedding to achieve true widths.
Diagrams	• *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.*	• Exploration results not being reported

Criteria	JORC Code explanation	Commentary
Balanced reporting	• *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.*	• Exploration results not being reported
Other substantive exploration data	• *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.*	• Downhole geophysics comprises magnetic susceptibility conductivity, gamma and density has been completed for all holes. This has resulted in the definition of a magnetic (and density-related) stratigraphy that is coincident with a chronostratigraphic interpretation. Two tools were used to collect the data, a FDS50 (Formation Density) tool using a 3500CO radioactive source and a MIG08 (Magnetic susceptibility/Induction conductivity/Gamma) tool. Gamma was also collected using the FDS tool.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Further environmental and engineering studies are planned which will form part of the current PFS completion.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	• *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.* • *Data validation procedures used.*	• Independently customised Access database by GR-FX Pty Ltd • Validation of database undertaken by Keith Hannan of Geochem Pacific Pty Ltd, an independent consultant. • Limited validation was conducted by H&S Consultants (H&SC) to ensure the drill hole database is internally consistent. Validation included checking that no assays, density measurements or geological logs occur beyond the end of hole and that all drilled intervals have been geologically logged. The minimum and maximum values of assays and density measurements were checked to ensure values are within expected ranges. Further

Criteria	JORC Code explanation	Commentary
		checks include testing for duplicate samples and overlapping sampling or logging intervals • H&SC has not performed detailed database validation and CAP personnel take responsibility for the accuracy and reliability of the data used to estimate the Mineral Resources. • H&SC created a local E-W orthogonal grid for all interpretation and modelling work
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• Regular site visits have been carried out by Quentin Hill, Managing Director for CAP, who acts as the Competent Person with responsibility for reporting the exploration results and the integrity and validity of the database on which resource estimates were conducted. • A site visit has been undertaken in 2012 by Simon Tear of H&SC, Competent Person for the reporting of the resource estimates.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• The broad geological interpretation of the Hawsons deposit is relatively simple and reasonably well constrained by drilling and the high amplitude magnetic anomalies. • The mineralisation is stratabound as disseminated grains of magnetite with no obvious structural remobilisation or overprint. • The downhole geophysical data, gamma and magnetic susceptibility, has been used in conjunction with DTR recovered magnetic fraction grades to produce a detailed geological interpretation and to the generation of a set of 3D wireframes representing variously mineralised units and provide a stratigraphic framework. • The consistency of the geophysical patterns for the sediments provides for a high level of confidence in the stratigraphic interpretation. • Two main cross faults, possibly a conjugate pair, have been delineated and have caused small offsets in the mineral-bearing stratigraphy.

Criteria	JORC Code explanation	Commentary
		• H&SC used the geological logs of the drill holes to create a wireframe surface representing the base of colluvium. • H&SC also used the geological logs of the drill holes to create wireframe surfaces representing the base of complete oxidation (BOCO) and the top of fresh rock (TOFR). Contact plot analysis of the estimated elements were conducted in order to investigate how these surfaces should be treated in the resource estimation. The top of fresh rock surface was found to coincide with a marked difference in density and DTR and was therefore used as a hard boundary. The density and DTR values in the volume above the top of fresh rock surface were estimated using a flattened search ellipse. All other parameters did not take account of the top of fresh rock surface and the orientation of the search ellipse and variogram axes are controlled by the orientation of the lithological unit surfaces. • Any additional faulting in the deposit is assumed to be insignificant relative to the resource estimation. • H&SC is aware that alternative interpretations of the mineralised zones and faults are possible but consider the wireframes to adequately approximate the locations of the mineralised zones for the purposes of resource estimation. Alternative interpretations may have a limited impact the resource estimate.
Dimensions	• *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.*	• The resources have a strike length of around 3.3km in a south easterly direction. The plan width of the resource varies from 700m to 1.9km with an average of around 1.1km (noting the relatively modest dip angle of the beds. The upper limit of the mineralisation occurs between 25 and 80m below surface (average 65m) and the lower limit of the resource extends to a depth of 440m below surface. The lower limit to the resource is a direct function of the depth limitations to the drilling.
Estimation and modelling techniques	• *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.* • *The availability of check estimates, previous estimates and/or mine*	• Ordinary Kriging was used to complete the estimation in the Micromine software. H&SC considers Ordinary Kriging to be an appropriate estimation technique for the type of mineralisation and extent of data available from the Core and Fold deposits. All data has low coefficients of variation.

Criteria	JORC Code explanation	Commentary
	production records and whether the Mineral Resource estimate takes appropriate account of such data. • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	• A total of 3,924 unconstrained 5m composites were generated from the drillhole database and modelled for Davis Tube recovered magnetic fraction ("DTR"), iron head grade and the concentrate elements of Al_2O_3, P, S, SiO_2, TiO_2 and LOI, • 2,862 composites were in fresh rock and 1,161 in the transition zone of which 209 were from direct DTR measurement. 74 of the fresh rock composites were generated from the downhole mag_sus data with 55 from the hand-held mag_sus data via regression equations, particularly peripheral to the main mineralisation and the transition zone. • A regression based on downhole magnetic susceptibility was used to calculate likely DTR values for untested intervals. A regression based on the hand held magnetic susceptibility data was used to estimate the DTR values where downhole magnetic susceptibility was not available. Missing Fe concentrate grades were calculated using a regression based on the DTR grades and the remaining concentrate elements were calculated using a regression based on the iron concentrate grade. Most of the missing DTR grades were on the periphery of the mineralisation (often unsampled areas) and the missing concentrate grades the result of insufficient sample being available for XRF analysis mainly from the Interbed Unit. • The base of colluvium was used to control the upper limit of the resource estimation. Drill hole data from above the colluvium surface were not used in the resource estimate. • Two main cross faults have been delineated and have caused small offsets in the mineral-bearing stratigraphy. These faults were treated as hard boundaries during estimation so that data from within a particular fault block were only used to estimate blocks in that fault block. • H&SC created nine surfaces representing the edges of eight conformable lithological units based on drill hole data. These surfaces were combined to produce eight wireframe solids, the outer boundary of which was used to constrain the Mineral Resource Estimate. In order to reflect local variations of dip and strike, the orientation of the triangles that make up the nine surfaces were used to locally control the orientation of the

Criteria	JORC Code explanation	Commentary
		search ellipse and variogram axes – the dynamic interpolation method. • The top of fresh rock surface was found to coincide with a marked difference in density and DTR and was therefore used as a hard boundary. The density and DTR values in the volume above the top of fresh rock surface were estimated using a flattened search ellipse. All other parameters did not take account of the top of fresh rock surface and the orientation of the search ellipse and variogram axes are controlled by the orientation of the lithological unit surfaces. • No recovery of any by-products has been considered in the resource estimates as no products beyond iron are considered to exist in economic concentrations. • No top-cutting was applied as extreme values were not present and top-cutting was considered by H&SC to be unnecessary • No check estimate was carried out though the estimates were in line with previous estimates. Hellman & Schofield, the predecessor to H&SC, estimated the resources of Hawsons in 2010 and updated in 2011. The resource estimates were further updated in 2013 by H&SC following an in-depth analysis and interpretation of downhole geophysical data resulting in the delineation of Indicated Resources. The new resource estimates for 2017 have only a modest increase in size at the same grade. but contain considerably more Indicated Resource which was the aim of the infill drilling. The extra resource is primarily from peripheral areas in the Core and the Fold areas. • Block dimensions are 100m x 50m x 20m (Local E, N, RL respectively). The east and north dimensions were chosen as they are around half the nominal drillhole distances. The vertical dimension was chosen to reflect the sample spacing and possible mining bench heights. • Each element was estimated separately. Four search passes were employed with progressively larger radii or decreasing search criteria. The first pass used radii of 250x150x40m, the second pass used 300x150x50m, the third and fourth used 450x225x75m (along strike, down dip and across mineralisation

Criteria	JORC Code explanation	Commentary
		respectively). All passes used a four sector search with a maximum number of data points per sector of 8 (total 32). The first pass required a minimum of 20 data points from at least three different drill holes whereas the second and third passes required a minimum of 16 data points from at least two different drill holes. The fourth pass required a minimum of eight data points and had no restriction on the number of drill holes required. • The new block model was reviewed visually by H&SC and CAP geologists and it was concluded that the block model fairly represents the grades observed in the drill holes. H&SC also validated the block model using a variety of summary statistics and simple plots.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages of the Mineral Resource are estimated on a dry weight basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The resources are reported at a cut-off of 10% DTR as advised by CAP to H&SC. • Other constraints in reporting the resource estimates include below the top of the fresh rock surface and a vertical depth of -250mRL. • The cut-off grade at which the resource is quoted reflects the intended bulk-mining approach
Mining factors or assumptions	• *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.*	• The Hawsons resources were estimated on the assumption that the material is to be mined by open pit using a bulk mining method. • Minimum mining dimensions are envisioned to be around 25m x 10m x 10m (strike, across strike, vertical respectively). The block size is significantly larger than the likely minimum mining dimensions. • The resource estimation includes internal mining dilution. • A study was recently completed by GHD which developed a mine plan to produce 10Mtpa of magnetite concentrates via on

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		site processing • The proposed mining method would use a combination of In Pit Crushing and Conveying as well as truck and shovel.
Metallurgical factors or assumptions	• *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.*	• The idioblastic nature of the magnetite lends itself to relatively easy liberation • The ROM material is relatively soft for a magnetite deposit with a bond work index much lower than typical Banded Iron Formation deposits. • Initial laboratory testwork by the CSIRO in Brisbane identified that the ROM material could readily be reduced to a particle size less than 1mm in an impact crusher. • hrlTesting completed metallurgical testwork that showed better than 50% rejection can be achieved in the rougher stages. The ball mill operational power is lower than expected and at a P_{100} of 38µm a concentrate of ~69% Fe can be achieved.
Environmen-tal factors or assumptions	• *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.*	• The deposits lie in flat open country typical of Western NSW. • Predominantly scrub vegetation that allows for sheep grazing. • There are large flat areas for waste and tailings disposal • Small number of creeks with only seasonal flows • Baseline data collection of a variety of environmental parameters is in progress e.g. dust monitoring, surface water, weather records • Preliminary Ecology Assessments with have led to field ecology studies under the guidance of the Office of Environment and Heritage in NSW • A Water Optimisation Study identified ways to reduce water consumption in the plant and has led to a new process design considering paste thickening in the metallurgical plant instead of the original conventional thickeners.

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Bulk density	• *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.* • *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.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• The short spaced density (SSD) data from the downhole geophysics was used for the density. The SSD data was collected using a FDS50 down hole tool containing a 3500CO radioactive source. This data had a correction factor of +5.2% applied based on testwork completed on 194 NQ core samples using the immersion-in-water (Archimedes) method. • The data was composited to 5m prior to modelling. • The density at Hawsons was estimated using Ordinary Kriging for search passes one to three and the remaining blocks were populated from values estimated from the Fe head grade of each block using a regression created from blocks where both variables had been estimated.
Classificatio n	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *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).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• The classification of the resource estimates is based on the data distribution which is a function of the drillhole spacing, the style of mineralisation, the geological model, coherency of the downhole geophysics including density, the QAQC programme and results and comparison with previous resource estimates. • The resources were initially classified on the search criteria with blocks populated by Passes 1 and 2 being Indicated and passes 3 and 4 being classed as Inferred. • Upon review of the Indicated resources a defined shape was delineated which reverted individual or small numbers of isolated blocks from indicated to Inferred. • A detailed sedimentological review using gamma and magnetic susceptibility downhole data demonstrated strong stratigraphic continuity of the DTR grades with the sediment packages. • H&SC believes the confidence in tonnage and grade estimates, the continuity of geology and grade, and the distribution of the data reflect Indicated and Inferred categorisation. The estimates appropriately reflect the Competent Person's view of the deposit. H&SC has not assessed the reliability of input data and CAP personnel take responsibility for the accuracy and reliability of the data used to estimate the Mineral Resources.
Audits or	• *The results of any audits or reviews of Mineral Resource estimates.*	• The estimation procedure was reviewed as part of an internal

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reviews		H&S Consultants peer review and the block model was reviewed visually by CAP geologists. • Mining Associates Limited (“MA’) completed a technical review in 2016 on the inferred and indicated resources (2014). MA concluded that the model is a good global representation of the magnetite resource and considers Ordinary Kriging to be an appropriate estimating technique the type of mineralisation with very low coefficients of variation. • Behre Dolbear Australia (“BDA”) completed a technical review for CAP in 2011 based on a GHD study. BDA considers that the broad geology and geological controls on mineralisation and the geological database are: o Generally adequately defined at this stage for estimation of Inferred [2010] resources. BDA recommends the use of hard boundaries for modelling of the mineralisation. o BDA considers that the analytical process adopted by Carpentaria is suitable for evaluation of recoverable magnetite concentrate proportions and quality. Overall the Hawsons database appears adequate for use in estimating Inferred resources under the [2012] JORC code o The proposed processing route is consistent with modern practice and flowsheets of other recently established operations.
Discussion of relative accuracy/ confidence	• *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.* • *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.*	• No statistical or geostatistical procedures were used to quantify the relative accuracy of the resource. The global Mineral Resource estimates of the Hawsons deposit is moderately sensitive to higher cut-off grades but does not vary significantly at lower cut-offs. • The relative accuracy and confidence level in the Mineral Resource estimates are considered to be in line with the generally accepted accuracy and confidence of the nominated Mineral Resource categories. This has been determined on a qualitative, rather than quantitative, basis, and is based on the Competent Person’s experience with similar deposits and

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	• *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	geology • The Mineral Resource estimates are considered to be accurate globally, but there is some uncertainty in the local estimates due to the current drillhole spacing and a lack of geological definition in places. • No mining of the deposit has taken place so no production data is available for comparison.