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PATHFINDER RESOURCES LTD

23 February 2021

Hamersley Iron Ore Project Mineral Resource JORC Code 2012

Key Points

- **Indicated Resource: 42.6 Mt at 55.2% Fe (57.3% CaFe)**
- **Total Mineral Resource: 343.2 Mt at 54.5% Fe (57.9% CaFe)**
- **Independent review completed of previous Mineral Resource JORC Code (2004) estimate reported by Runge Pinnock Minarco Limited**
- **Independent review of QAQC procedures for the historic drilling, sampling and assaying work completed to ensure compliance with JORC Code (2012)**
- **Independent re-modelling of the historical drilling, sampling and assay data to validate previous Mineral Resource estimate and to allow a Mineral Resource estimate to be reported in accordance with the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (JORC Code (2012))**

Pathfinder Resources Ltd (ASX:PF1) ("Pathfinder" or "the Company") formerly Winmar Resources Ltd (ASX:WFE) (Winmar) provides the following Mineral Resource estimate for the Hamersley Iron Ore Project, reported in accordance with JORC Code (2012). The Mineral Resource was previously released to ASX on 23 January 2020, while the Company was listed as Winmar, and is being released now to satisfy the conditions of ASX Listing Rule 5.8.

The Hamersley Iron Ore Project comprising Mining Lease M47/1450, is located approximately 50 km north-east of Tom Price in the Pilbara region of Western Australia, immediately south of the Solomon project held by Fortescue Metals Group Ltd (ASX: FMG) and north of Rio Tinto's Rail network.

Pathfinder's interest in the Hamersley Iron Project is held through an unincorporated joint venture, the Winmar Exploration Joint Venture (**WEJV**) between Pathfinder (70%) and Lockett Fe Pty Ltd (30%) (a wholly owned subsidiary of Cazaly Resources (ASX:CAZ) (**Cazaly**).

The Hamersley Iron Ore Project has been the subject of several reverse circulation and diamond drilling exploration programs since 1998, and in total 168 holes have been drilled for 22,621m of drilling.

The Hamersley Iron Ore Project includes both Channel Iron Deposit (CID) and Detrital Iron Deposit (**DID**) styles of iron mineralisation. The CID is a coherent body at least 2.0 km by 2.5km in area and, in the southwest, is overlain by DID mineralisation comprising unconsolidated detrital material.

The mineralisation remains open in several directions, particularly to the north.

Previous exploration results from the various drilling programs undertaken on the Hamersley Iron Ore Project have been announced by Pathfinder Resources formerly Winmar Resources (ASX:WFE) in various ASX Announcements to shareholders and specifically include: *Independent Technical Report - Prospectus dated 10 January 2011, Immediate Drill Success at Winmar Deposit Extensions dated 20 April 2011, Continued Success at Winmar Deposit dated 16 May 2011, Further Encouraging Results At Hamersley Project dated 30 May 2011, Further Encouraging Results From RC Drilling Hamersley Iron Ore Project dated 30 June 2011, Winmar- Excellent Results Keep Coming dated 25 August 2011, New Discovery- Hamersley Project dated 6 September 2011, Hamersley Project Exploration Update date 4 April 2012, Drilling At Hamersley Iron Ore Project Intersects Significant Extensions Of Mineralisation dated 14 June 2012, Significant Drilling Intercepts From Hamersley Project dated 16 July 2012, Outstanding High Grade Drilling Intercepts From Hamersley Project dated 23 July 2012, Winmar Expands Hamersley Iron Ore Resource By 52% dated 21 August 2012, Outstanding High Grade Drilling Intercepts At Hamersley Iron Project dated 16 April 2013 and Maiden Indicated Mineral Resource At The Hamersley Iron Project dated 23 May 2013.*

Table 1: JORC Code (2012) Mineral Resource Estimate for the Hamersley Iron Ore Project

INDICATED MINERAL RESOURCE (JORC 2012)							
Mineralisation Type	**Tonnes Mt**	**Fe %**	**SiO_2 %**	**Al_2O_3 %**	**P %**	**LOI %**	**CaFe[1] %**
Channel (CID)[2]	42.6	55.2	10.9	5.5	0.0	3.6	57.3
Total	**42.6**	**55.2**	**10.9**	**5.5**	**0.0**	**3.6**	**57.3**

INFERRED MINERAL RESOURCE (JORC 2012)							
Mineralisation Type	**Tonnes Mt**	**Fe %**	**SiO_2 %**	**Al_2O_3 %**	**P %**	**LOI %**	**CaFe[1] %**
Detrital (DID)[3]	24.3	46.4	24.8	5.2	0.0	2.5	47.6
Channel (CID)[2]	276.3	55.2	9.7	4.4	0.0	6.3	58.9
Total	**300.6**	**54.5**	**10.9**	**4.4**	**0.0**	**6.0**	**58.0**

TOTAL MINERAL RESOURCE (JORC 2012)							
Mineralisation Type	**Tonnes Mt**	**Fe %**	**SiO_2 %**	**Al_2O_3 %**	**P %**	**LOI %**	**CaFe[1] %**
Detrital (DID)	24.3	46.4	24.8	5.2	0.0	2.5	47.6
Channel (CID)	318.9	55.2	9.8	4.5	0.0	5.9	58.7
Total	**343.2**	**54.5**	**10.9**	**4.6**	**0.0**	**5.7**	**57.9**

*Notes: 1: Calcined Fe (CaFe) calculated by the formula CaFe % = [(Fe%)/100-LOI 1000)]*100*
2: Channel Iron Deposit mineralisation reported at a 52% Fe cut=off grade.
3: Detrital Iron Deposit Mineralisation reported at a 40% Fe cut-off grade.

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In June 2019, Pathfinder (formerly Winmar) engaged Perth-based geological consulting group Al Maynard & Associates (**AM&A**) to complete a review of the Hamersley Iron Ore Project and to estimate a new Mineral Resource in accordance with the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves".

AM&A completed a review of the Mineral Resource estimate prepared by Runge Pinnock Minarco Ltd **(Runge)** in 2013 and reported by the Company in May 2013 (refer WFE ASX Announcement dated 23 May 2013).

There has been no further drilling or any other factors that would affect the reported resource since this report. The resource modelling and reporting was found by AM&A to be compliant with the current JORC Code (2012) except that the reporting of the QAQC for the drilling, sampling and assaying did not fully meet the JORC Code (2012) requirements.

AM&A proceeded to obtain all the relevant QAQC data and reports then carried out a thorough statistical study of this data and found that the drilling and sampling procedures met the standards required by the JORC Code (2012). AM&A then modelled the resource independently using the same drilling data but using different software and modelling method as a check of the Runge estimate and came up with tonnes and grades consistent with those reported by Runge, and well within reasonable limits.

AM&A have accepted the Runge May 2013 Mineral Resource estimate, and along with the AM&A reporting of the QAQC for the drilling, sampling and assaying, are now reporting the Mineral Resource estimate in accordance with the JORC Code (2012).

The resource limits and drilling at the Hamersley Iron Ore Project is shown in the figures below.

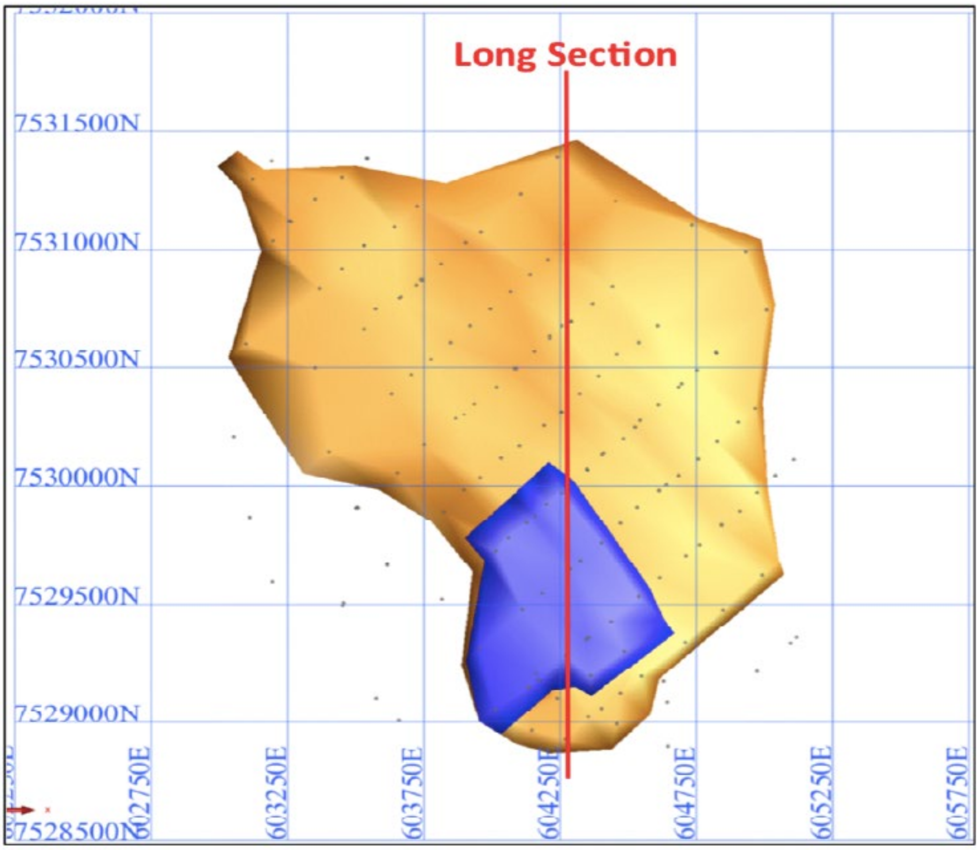

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Figure 1: Hamersley Iron Ore Project Drilling and Resources Wireframes (Plan View)

Brown CID | Blue: DID

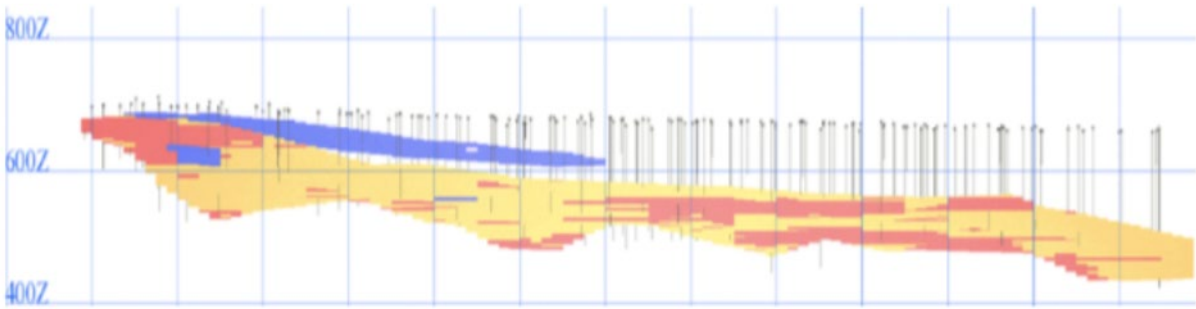

Figure 2: Hamersley Iron Ore Project Long Section of North South through Resource Model

Blue: 40-50% Fe | Amber 50-55% Fe | Red 55-60% Fe

HAMERSLEY IRON ORE PROJECT MINERAL RESOURCE ESTIMATE JORC CODE 2012

1. Geology and Mineralisation

The Hamersley Iron Ore Project is situated in the central portion of the Hamersley Province. The Hamersley Province contains late Archaean - Lower Proterozoic age sediments of the Mount Bruce Supergroup, which lies between the Archaean granitoid basement complexes of the Yilgarn and Pilbara cratons. The Mount Bruce Supergroup has three constituent groups - the Fortescue, Hamersley and Turee Creek Groups.

The Hamersley Group banded iron formations are the most iron rich, extensive and thickest known in the Precambrian stratigraphic record. The Group is approximately 2.5km thick and consists of a conformable sequence of banded iron formation, chert, dolomite, pyroclastic/hemipelagic shale and acid volcanic rocks. The Group has been intruded by both syn-sedimentary and post-sedimentary dolerites.

A stratigraphic column showing the Hamersley Group stratigraphy is displayed in Figure 3 below.

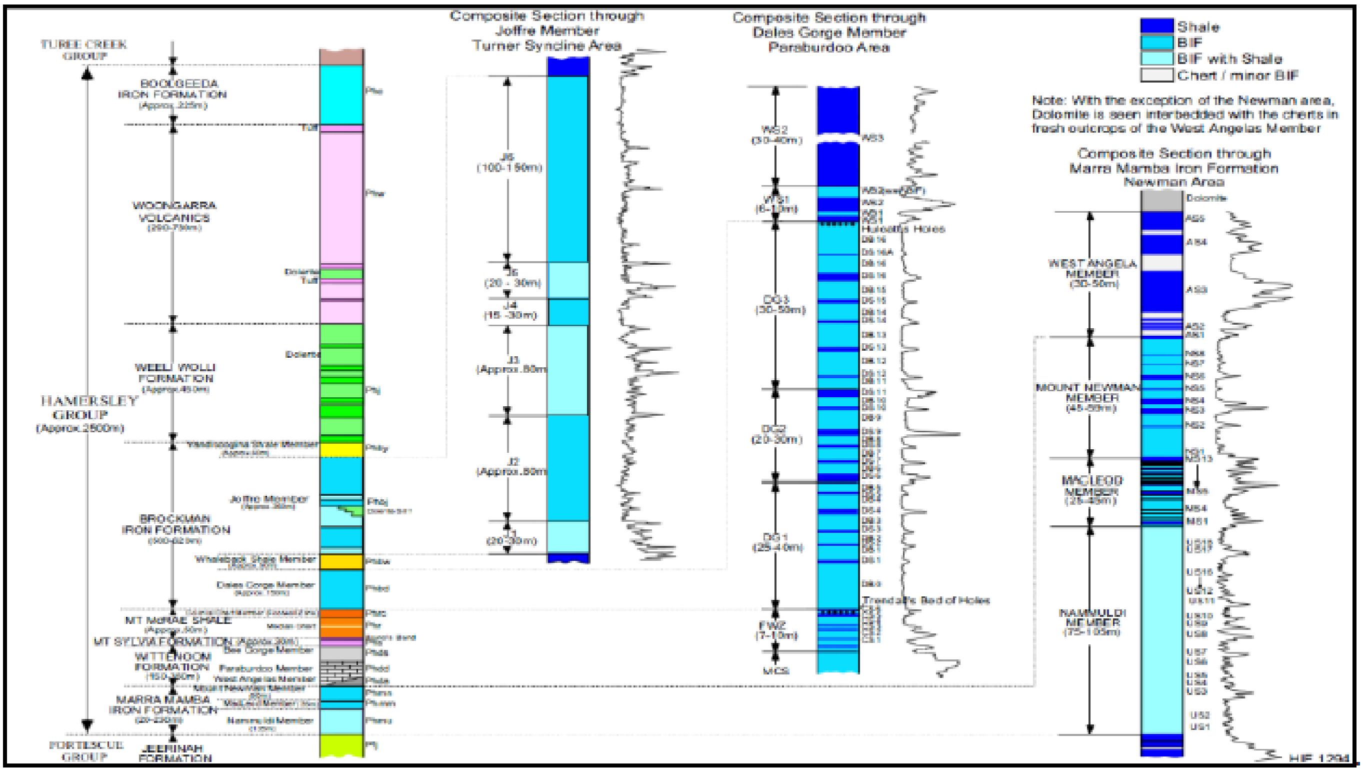

Figure 3: Stratigraphy of the Hamersley Group

The Marra Mamba and Brockman Iron Formations of the Hamersley Group are the units of interest in exploring for bedded iron mineralisation. The second genetic ore group in the Province in terms of commercial importance are the channel iron deposits (CIDs).

At the Hamersley Iron Ore Project, a broad alluvial plain occupies the majority of the tenement, with outcropping Brockman Iron Formation prominent at the southern and eastern boundaries. Underlying the transported material within the alluvial plain are the Brockman Iron Formation, the Mount McRae Shale and the Mount Silvia Formation.

The Mount Silvia Formation is approximately 30m thick and is distinguished by three prominent BIF/chert units separated by shale. The uppermost planar bedded BIF unit (~8m) is known as "Bruno's Band" and provides a useful marker horizon. Further beneath Bruno's Band lie two, thinner BIF/chert units known as the "Tram Tracks".

The Mount McRae Shale is approximately 50m thick and is composed of mostly carbonaceous shale (when fresh) with chert. Pyrite can occur within the shale units and can pose an acid rock drainage risk in the mining process. The uppermost 12m of the Formation consists of interbedded BIF and shale and can be enriched to low grade ore and is known as the Colonial Chert Member or Footwall Zone.

The Brockman Iron Formation varies in thickness from approximately 500-620m and is composed of two dominant BIF units (Dales Gorge and Joffre Members) and shale with minor chert/BIF (Whaleback Shale). Both major BIF units have shale interbeds that have distinct geophysical signatures, which can be mapped on a regional scale. These shale macrobands typically give a "ribbed" appearance in the outcropping Dales Gorge Member.

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The Hamersley Iron Ore Project contains two types of iron mineralisation: channel iron (CID) and detrital iron (DID).

CID occurs both in synclinoria and on mild dip slopes on the margin of paleochannels, in addition to mesas formed by relief inversion in the central zones of paleochannels. CID's are subdivided into "mesa" and "gorge" deposits. Such deposits are dominated by pisolitic goethite-hematite iron mineralisation and incorporate the Marillana Formation CID (gorge) and Robe Formation CID (mesa). The Hamersley Iron Project CID is interpreted as a gorge CID and is completely masked by recent creek sediments. All CID's formed in the Tertiary period.

DID occur as shallow blankets of outwash scree in structural depressions adjacent to iron ore escarpments. The material is derived from the erosion of a surface enriched carapace that encrusted the escarpments. Cyclic fluids result in ferruginisation of the matrix and lowering of the phosphorous content. Cementation can occur towards the base of the detrital pile and form a very hard hematite conglomerate known as canga.

2. Historical Drill Data

Several drilling programs have been carried out since 1998 by Robe River, Cazaly and by Pathfinder (formerly Winmar). Three historical RC drill holes (1998) from the Robe drill campaign are recorded in the drill hole database, with all other holes resulting from recent drill campaigns by Cazaly and Winmar.

The Robe drill hole information has been sourced from relevant Robe technical reports and annual exploration reports held by the DoIR for Western Australia.

Company	Period	Drilling Method	Prefix	No of Holes	Metres
Robe	1998	RC	SB	3	160
Cazaly	2008	RC	PLRC	18	1,795
Cazaly	2009	RC	PLRC	9	1,332
Cazaly	2010	RC	PLRC	2	230
Cazaly	2011	RC	PLRC	91	13,315
Cazaly	2011	DD	PLRD	2	237
Pathfinder (formerly Winmar)	2012	RC	PLRC	40	5,314
Pathfinder (formerly Winmar)	2012	DD	PLRD	3	238
Total				**168**	**22,621**

Table 2: Drill Hole Metres by Year

3. Drilling Data

An Access database containing updated drilling information was provided to Runge by Terra Search. The drilling database comprises data from initial exploration drilling, then subsequent programs of

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infill and extensional drilling. The data was validated by drill hole loading routines and visually interrogated after being mapped to Surpac software.

A summary of the Hamersley Iron Ore Project drilling data as supplied is shown in the table below.

General	In Project		In Resource		
Type	Drill Holes		Drill Holes		Intersection
	Number	Metres	Number	Metres	Metres
RC	163	22,146	112	17,604	5,245
DD	5	475	-	-	-
Total	**168**	**22,621**	**112**	**17,604**	**5,245**

The database was loaded by Runge into Surpac Mining software Version 6.1.4.

Drilling Campaigns

Cazaly has completed 3 phases of RC drilling at the Hamersley Iron Ore Project. For the first phase in October 2008, Cazaly contracted Kennedy Drilling of Kalgoorlie to undertake first pass drilling of the newly defined gravity anomaly. Eighteen holes were drilled for 1,795m (PLRC0001 - PLRC0018).

For the second phase in November 2009, Cazaly contracted McKay Drilling of Wangara. A total of 9 drill holes for 1,332m were completed (PLRC0022 - PLRC0030).

A third phase of drilling was completed in May 2011 (PLRC0044 - PLRC0136). The drill program was started in October 2010 with two holes drilled, however the rig was found to be unsuited to the ground conditions and the program temporarily aborted. The completed program utilized two drill rigs from McKay Drilling and comprised 83 drill holes for 13,035m in a major resource drill-out campaign, testing the full 2.8km strike of the gravity anomaly.

In addition, a program of 3 Sonic drill holes was completed in 2009 for bulk density testwork (PLSD0019, PLSD0020 and PLSD0021).

Pathfinder (formerly Winmar) assumed control of the Hamersley Iron Ore Project in 2012 and contracted Terra Search to complete a 40 RC drill hole program (PLRC0137 - PLRC0176) using McKay Drilling and Frontline Drilling of Midvale for a total of 5,314m.

Drill Hole Collar Location

All drill hole collar locations were surveyed in MGA94, Zone 50 grid system by contract surveyors using DGPS equipment. The last 13 holes drilled in 2012 had not been surveyed when Runge modelled the resource so the design collar coordinates were snapped to the topography surface.

Down Hole Surveys

All drill holes were drilled vertical and recorded at -90° dip and 0° azimuth within the database. No down hole surveys have been completed.

The deposit geometry is generally flat-lying and continuous with the impact of no down hole surveys likely to have only minimal influence on the shape of the mineralisation envelope.

Geological Logging

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All drill holes were logged for a combination of geological and mineralogical attributes. These attributes were transferred to the drill hole database and were used to assist in defining the mineralisation envelopes. Chip trays were kept for each logged interval.

Water Table

Terra Search reported that the standing water table lies approximately 70m below the surface; however the majority of holes had dry samples for the 2012 drilling. It is likely that the compressed air from the RC rig pushed most of the water away from the drill bit, resulting in dry samples.

Cazaly reported that the water table was not intersected in any of the holes drilled at the Hamersley Iron Ore Project prior to the 2011 drill program. The 2011 drill program was hampered by higher water flows which appear to be a seasonal effect of sub-surface drainage. The drill program was supervised by geologists on the rig to ensure sampling procedures were followed, however very few wet samples were noted during the drill campaigns.

No subsequent adjustment has been made to the assay database or the JORC Code 2012 Mineral Resource estimate to account for the position of the water table. This approach matches the approach used in previous estimates.

Sampling

For Cazaly drilling in 2008, cuttings from RC drilling were initially dry riffle split over one metre intervals and then composited into two metre samples using a bench riffle. The procedure was modified slightly during subsequent programs to carry out a dry riffle split of drill cuttings over two metre intervals in a single pass. Samples were collected in marked calico bags at an average weight of 3 to 5kg.

For Cazaly and Pathfinder (formerly Winmar) drilling from 2010, cuttings from RC drilling were split using a rig-mounted cone splitter. Cazaly samples were taken over two metre intervals and collected in marked calico bags at an average weight of 3 to 5kg. Pathfinder (formerly Winmar) samples were also taken over two metre intervals and collected in marked calico bags at an average weight of 1 to 2kg. Field staff supervised the collection and transport of drill samples to the assay laboratory.

Cazaly drill samples were sent to Kalassay Laboratory in Perth and Pathfinder (formerly Winmar) samples were sent to Nagrom Laboratory in Perth for XRF analysis. Samples were processed in the following manner:

- Received samples recorded by the assay laboratory,
- Ring-mill pulverisation to 90% passing 75um,
    - Samples greater than 4kg were split for pulverising and then re-combined.
- A sub-sample of 500g pulp was retained in a pulp envelope,
    - Pulps are stored at the laboratory for future reference.
- The remaining sample reject was discarded.

Data Excluded

Drill holes without assay data were excluded from the resource estimate. This included all Sonic and diamond drill holes.

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PLRD0119	PLRD0120	PLSD0019
PLSD0020	PLSD0021	

Table 4: List of Excluded Holes

4. Assay Data

Methodology

Assaying of Fe, Al_2O_3, SiO_2, Mn, P, Sand TiO2 was conducted at Kalassay Laboratory (prior to 2012) and Nagrom Laboratory in Perth (in 2012), using the XRF spectrometry on fused bead, while analysis of LOI was determined by Thermo-Gravimetric Analysers at 371°C, 6S0°C and 1000°C.

Quality Control

The quality control information had been sourced by Runge for their JORC Code (2004) mineral resource estimate and report from numerous internal Terra Search reports. These reports indicated that the sample and assay data are representative, homogenous and repeatable, and suitable for use in their JORC Code (2004) resource estimate.

Standard analyses, field duplicates, laboratory repeats and an umpire laboratory (SGS in Perth) were used in the QAQC program. Standard and field duplicate samples were both inserted at a rate of 1 in 20, which Runge considered adequate.

The current JORC Code (2012) for reporting Mineral Resources requires that the sampling procedures and QAQC data are more thoroughly reviewed and reported than was previously required.

AM&A reviewed the Terra Search QAQC reports and compiled all the QAQC data for all the different phases of drilling to independently review the data to confirm if the sampling and assays procedures met the current JORC Code (2012) requirements.

Duplicate samples collected in the field were submitted at the rate of 1 in 20, which AM&A considers to be adequate.

Scatter plots of the Original Vs Duplicate Fe% (correlation coefficient = 0.988), Al2O3% (correlation coefficient = 0.978) and SiO2% (correlation coefficient = 0.991) show very good correlation indication with now obvious outliers indicating that the sampling procedures were very good with very good repeatability.

Laboratory repeat assays were also reviewed by AM&A and these were found to have excellent correlation.

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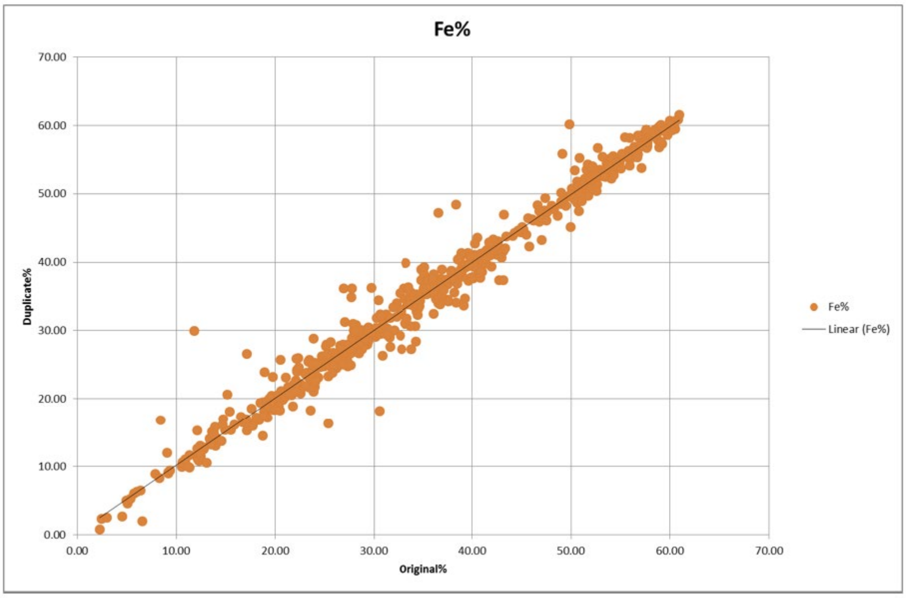

Figure 4: Field duplicate Fe% assays

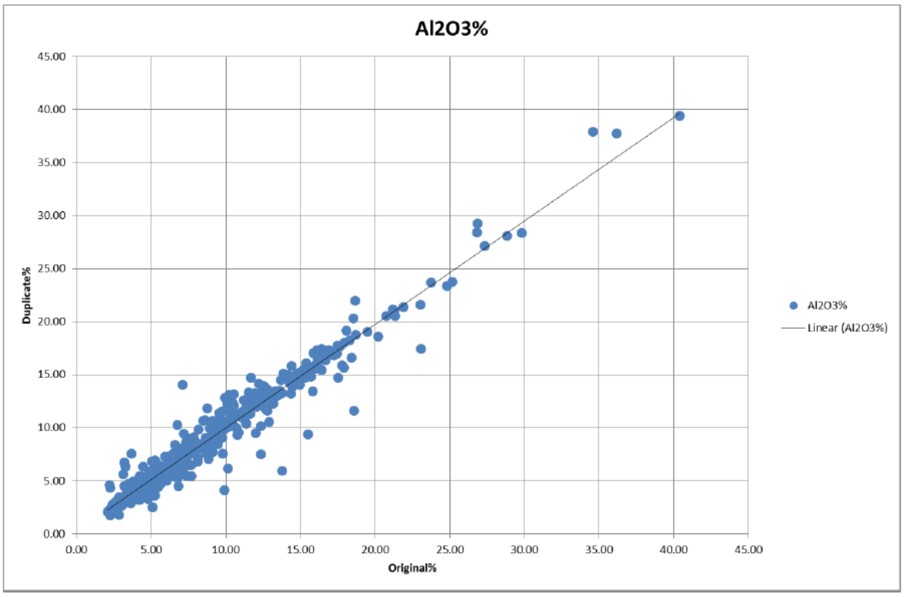

Figure 5: Field duplicate Al_2O_3% assays

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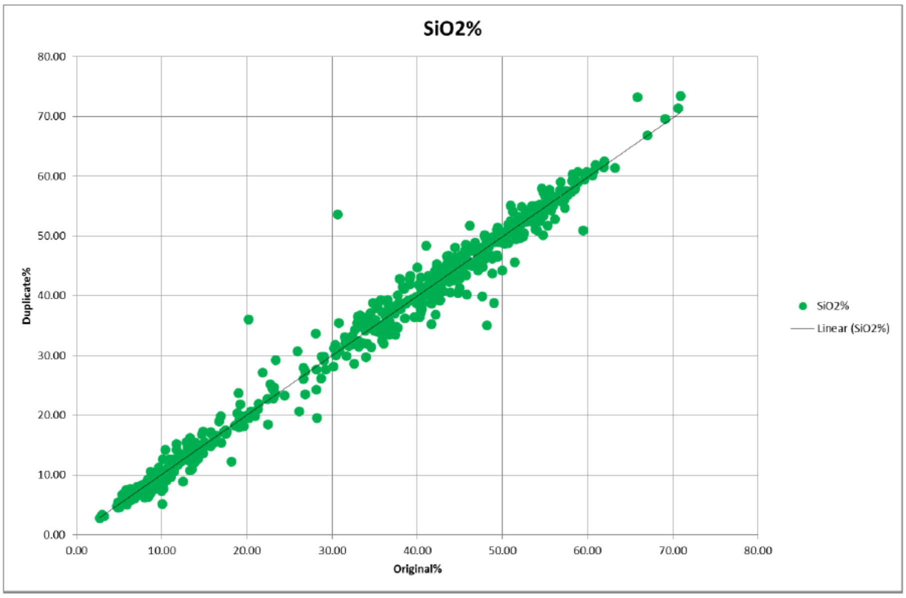

Figure 6: Field duplicate SiO_2% assays

Standards

Standards or Certified Reference Materials (CRMs) were inserted at the rate of 1 in 20, Figure 7 to Figure 9. AM&A considers the insertion rate as being adequate.

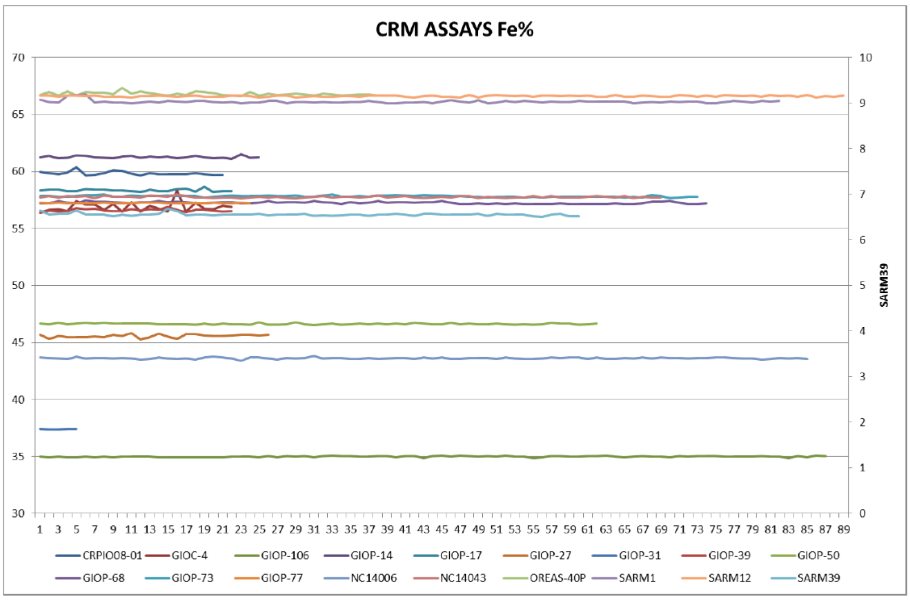

Figure 7: Standards assays Fe%

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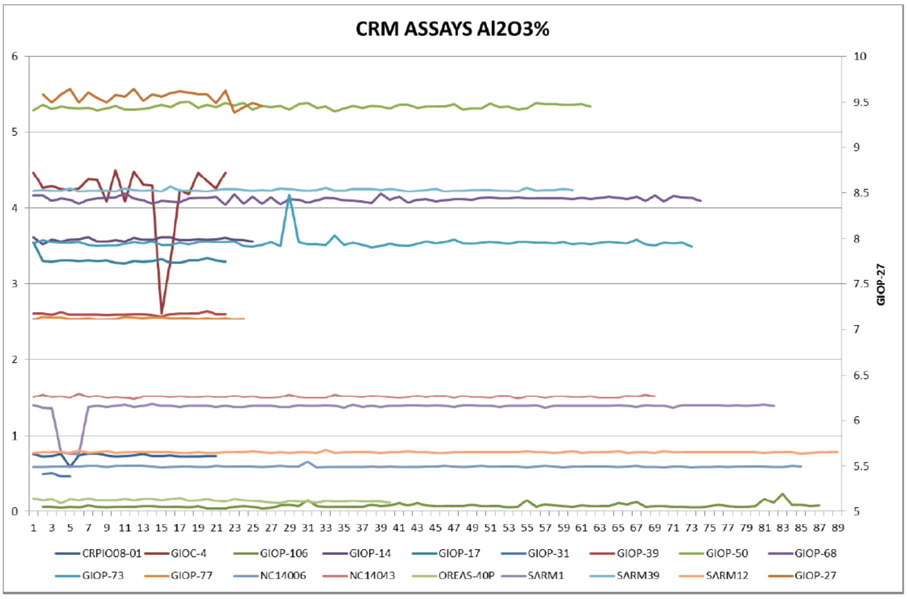

Figure 8: Standards assays Al_2O_3%

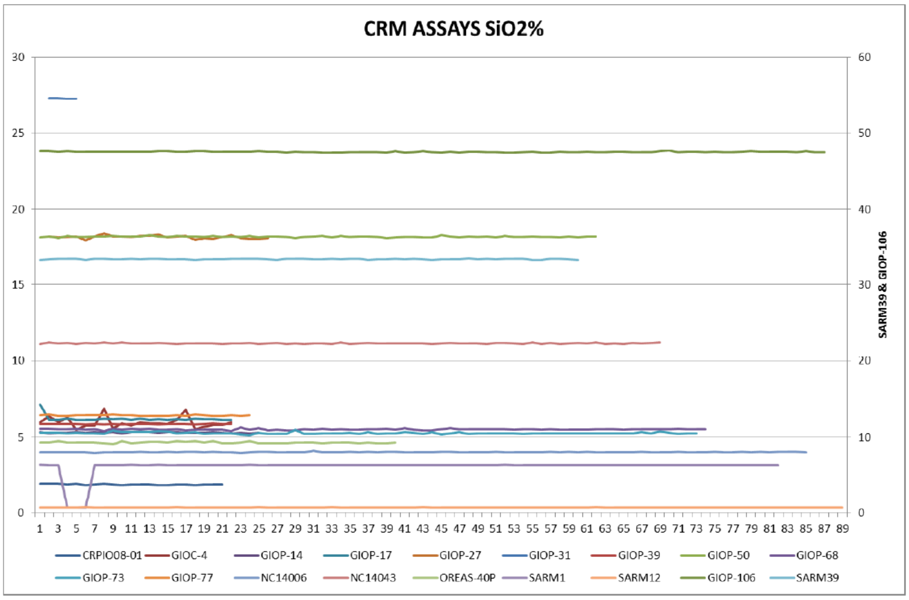

Figure 9: Standards assays SiO_2%

All the Standards assay plots, show that the assay variation for each standard is very small except for one Al_2O_3 assay in each of GIOC-04 and GIOP-73 and two Al_2O_3 assays in SARM1 along with three SiO_2 assays in SARM1. All the Fe assays were consistent for each standard.

AM&A considers that the QAQC assay results and Terra Search reporting of procedures followed during the sampling of RC drilling chips and diamond core are of sufficient standard to support a JORC Code (2012) Mineral Resource estimate and report.

6. Bulk Density Data

Limited bulk density data was available for the deposit. A bulk density value of 2.59 t/m^3 was applied to the CID mineralised material in the resource. This was assigned based on specific gravity measurements collected from four diamond holes. At the direction of Terra Search, a bulk density value of 2.50t/ m^3 was applied to the DID mineralised material and all waste material in the resource.

Type	Bulk Density t/ m^3
All Waste Material	2.50
Detrital Iron Mineralisation	2.50
Channel Iron Mineralisation	2.80

Table 5: Bulk Density by Type

AM&A recommends that additional bulk density test-work be conducted, particularly focussing on the mineralised zones but including waste zones from the various material types.

7. Metallurgy

Preliminary metallurgical testwork has been carried out since 2011 on the DID, BID and CID ore types and the results considered as part of the SRK Scoping Study that was completed in February 2014.

Pathfinder's (formerly Winmar) most recent drilling focus has been on the higher-grade CID ores in the southwest section of the Mineral Resource. Ore characteristics have been tested as part of a program focused on mineralogy and size versus grade relationships. There has been preliminary gravity testwork undertaken including (HLS), dense media separation (DMS) and gravity table testwork. Some magnetic separation testwork has also been undertaken. The most recent CID testwork has been based on composites made up from RC drilling samples in the southwest area. Due to the additional fines generated from the RC drilling action, some assumptions are required on the feed and product sizing, mass yield and iron recoveries. The use of diamond core samples is recognised as the industry standard to ascertain these parameters.

The thermal characteristics of the products have not been viewed. Testing is recommended prior to the Company proceeding with a feasibility study. The thermal characterisation testing assesses the products performance during smelting.

8. Database Verification

Verification of hard copy logs with the data has not been completed by either Runge or AM&A. AM&A recommends that original logs for other drill campaigns be located and verified to increase the confidence in the database.

Runge previously completed systematic data validation steps in generating the database. Checks completed by Runge included:

- Down hole survey depths did not exceed the hole depth as reported in the collar table.
- Hole dips were within the range of 0° and -90°.
- Assay values did not extend beyond the hole depth quoted in the collar table.

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- Assay and survey information was checked for duplicate records.

All data loaded correctly into the Runge project database.

Runge checked 37 drill collar sites with a hand-held GPS against their recorded locations in the database and confirmed their location.

AM&A also loaded the database checked by Runge into MineMap software verifying that it was free of errors.

9. Interpretation and Resource Statistics Geology and Resource Interpretation

Mineralisation interpretations for Pathfinder (formerly Winmar) used by Runge were supplied by Terra Search. The mineralisation envelopes were based on a nominal 50% Fe cut-off grade for CID and 40% Fe cut-off grade for DID. In addition, two zones of internal waste were interpreted in the CID mineralisation.

The detrital mineralisation envelope forms a relatively near-surface unit in the southern area of the deposit. The deeper channel iron mineralisation forms a continuous, tabular unit orientated southeast- northwest.

Preparation of Wireframes

The interpreted sectional outlines were manually triangulated to form wireframes.

To form ends to the wireframes, the end section strings were copied to a position approximately midway to the next section and adjusted to match the mineralised trend of the zone. The wireframed objects were validated using Surpac software and set as solids.

A total of 4 wireframes were created and used to select the sample data to be used for grade estimation, and to constrain the block model for estimation purposes. The mineralisation wireframes were treated as hard boundaries for all estimation purposes, that is, only assays from within each wireframe were used to estimate blocks within that wireframe.

Topographic Surface

A topographic surface was created using the surveyed drill hole collars. The topographic surface is generally flat-lying and not intersected by the deeper iron mineralisation of interest.

Sample Statistics

The wireframes of the mineralised zones were used to define the resource intersections. These were coded into the 'reszone' table within the database. Sample records within the 'reszone' intersections were used to conduct a sample length analysis, which indicated that the vast majority of the 2,629 raw sample intervals inside the wireframes had a length of 2m.

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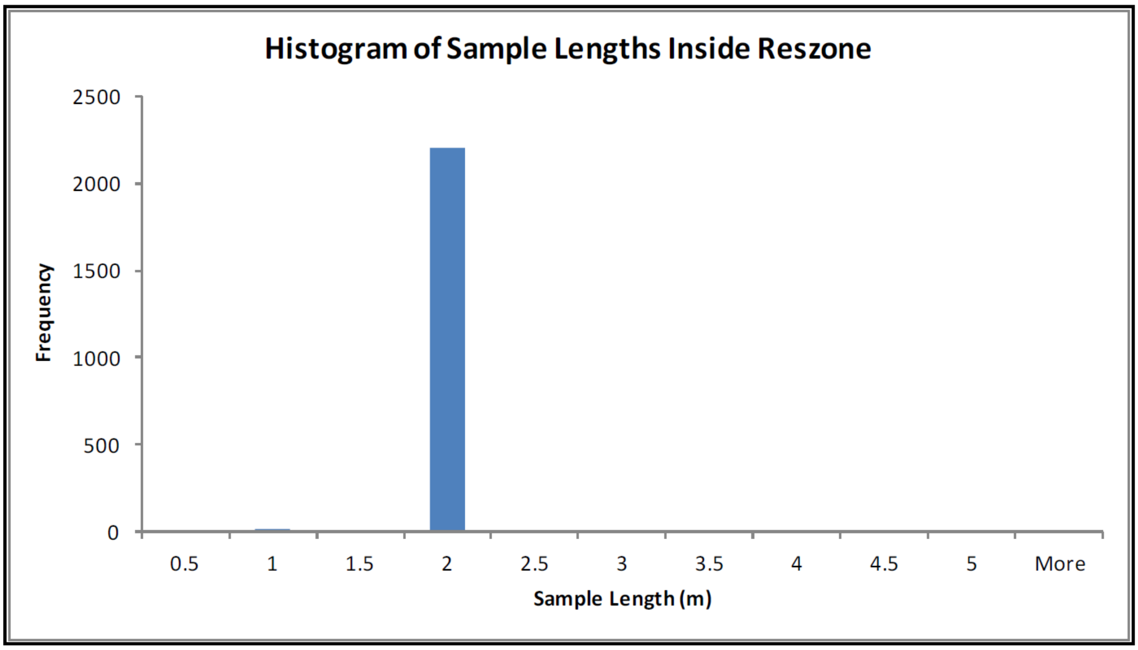

Figure 10: Raw Sample Lengths within Mineralisation Wireframes

Surpac software was then used to extract fixed length 2m down hole composites within the intervals coded as resource intersections.

The composites were checked for spatial correlation with the objects, the location of the rejected composites and zero composite values. Individual composite files were created for each of the individual domains in the wireframe models.

The 2m composite data was imported into Supervisor software for analysis. Summary statistics for Fe, Al_2O_3, SiO_2, P and LOI are shown in the Tables 6 and Table 7 for the CID and DID respectively, while corresponding histograms are shown in Figure 11 and Figure 12.

Parameter	CID – Object 1				
	Fe	SiO2	AbO3	p	LOI
Samples	2,188	2,188	2,188	2,188	2,188
Minimum	28.31	1.84	1.21	0.01	1.13
Maximum	63.71	43.82	12.77	0.14	11.83
Mean	55.31	10.07	4.49	0.04	5.52
Standard deviation	3.38	3.85	1.59	0.02	2.28
CV	0.06	0.38	0.36	0.38	0.41
Variance	11.41	14.83	2.54	0.00	5.20

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Percentiles					
10%	51.12	5.79	2.76	0.03	2.45
20%	52.40	6.78	3.15	0.03	3.30
30%	53.58	7.71	3.46	0.03	4.05
40%	54.58	8.56	3.81	0.04	4.76
50%	55.43	9.46	4.15	0.04	5.49
60%	56.29	10.59	4.52	0.04	6.05
70%	57.25	11.78	5.08	0.05	6.76
80%	58.31	13.14	5.77	0.05	7.61
90%	59.54	15.04	6.71	0.06	8.65
95%	60.43	16.62	7.63	0.07	9.41
97.50%	61.06	18.42	8.32	0.08	10.19
99%	61.80	20.43	9.18	0.11	10.70

Table 6: CID Summary Statistics

Parameter	**DID – Object 1**				
	Fe	**SiO2**	**AbO3**	**p**	**LOI**
Samples	234	234	234	234	234
Minimum	31.95	6.93	2.78	0.02	1.14
Maximum	56.17	40.79	9.97	0.07	8.21
Mean	46.53	24.65	5.24	0.04	2.56
Standard deviation	4.46	5.63	1.16	0.01	0.56
CV	0.10	0.23	0.22	0.18	0.22
Variance	19.89	31.69	1.34	0.00	0.32
Percentiles					
10%	40.98	17.30	4.02	0.03	2.09
20%	42.35	19.95	4.40	0.03	2.24
30%	43.78	21.79	4.62	0.03	2.35
40%	45.40	22.89	4.85	0.03	2.45
50%	46.76	24.37	5.10	0.04	2.54
60%	48.16	25.97	5.38	0.04	2.62
70%	49.08	28.24	5.64	0.04	2.71
80%	50.41	29.48	6.02	0.04	2.84
90%	52.45	31.73	6.77	0.04	3.03
95%	53.65	33.81	7.13	0.05	3.20
97.50%	54.22	34.75	8.38	0.05	3.46
99%	55.92	38.97	8.94	0.05	3.80

Table 7: DID Summary Statistics

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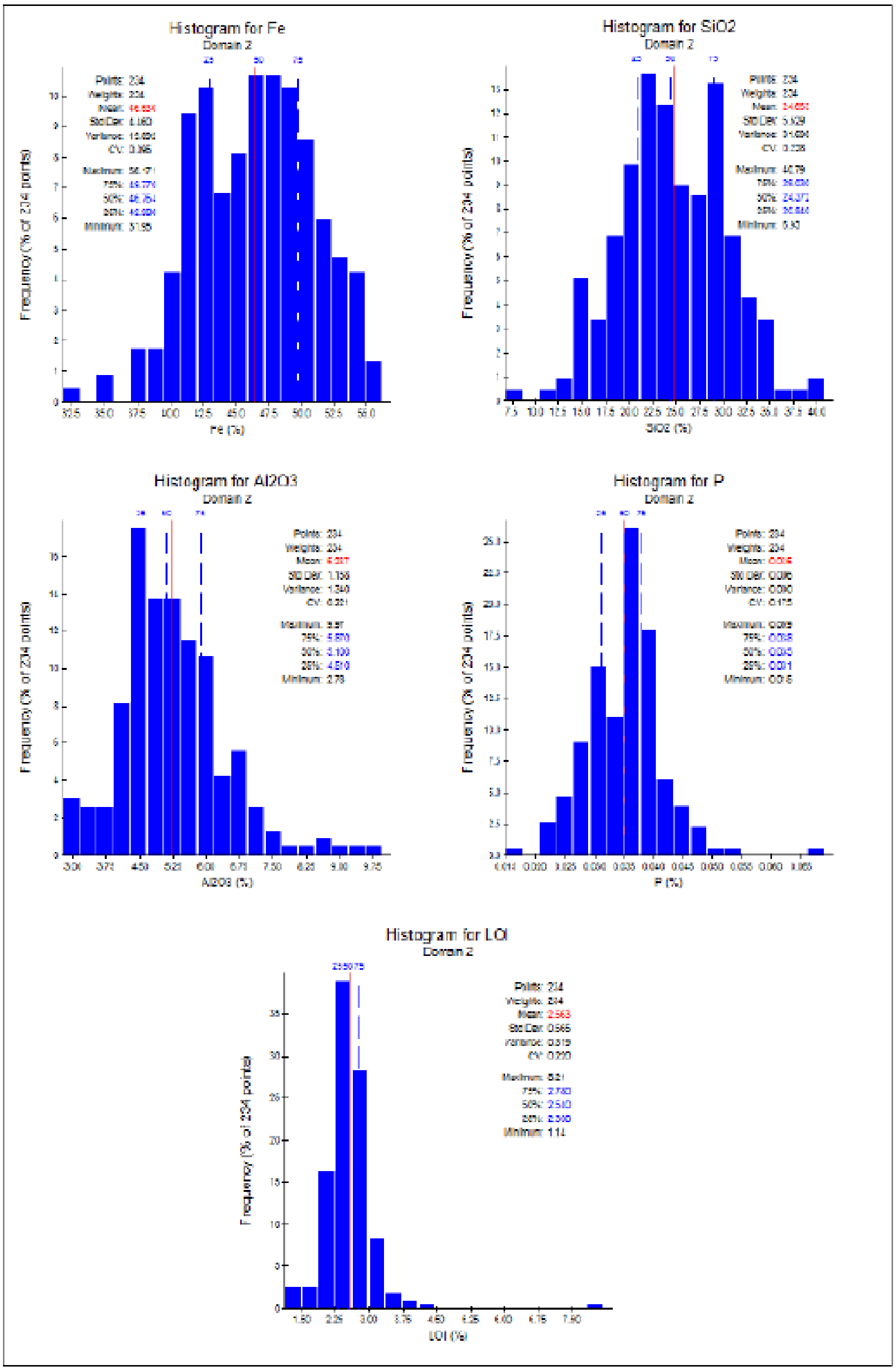

Figure 11: Population Histograms for Fe, SiO_2, Al_2O_3, P and LOI in the DID

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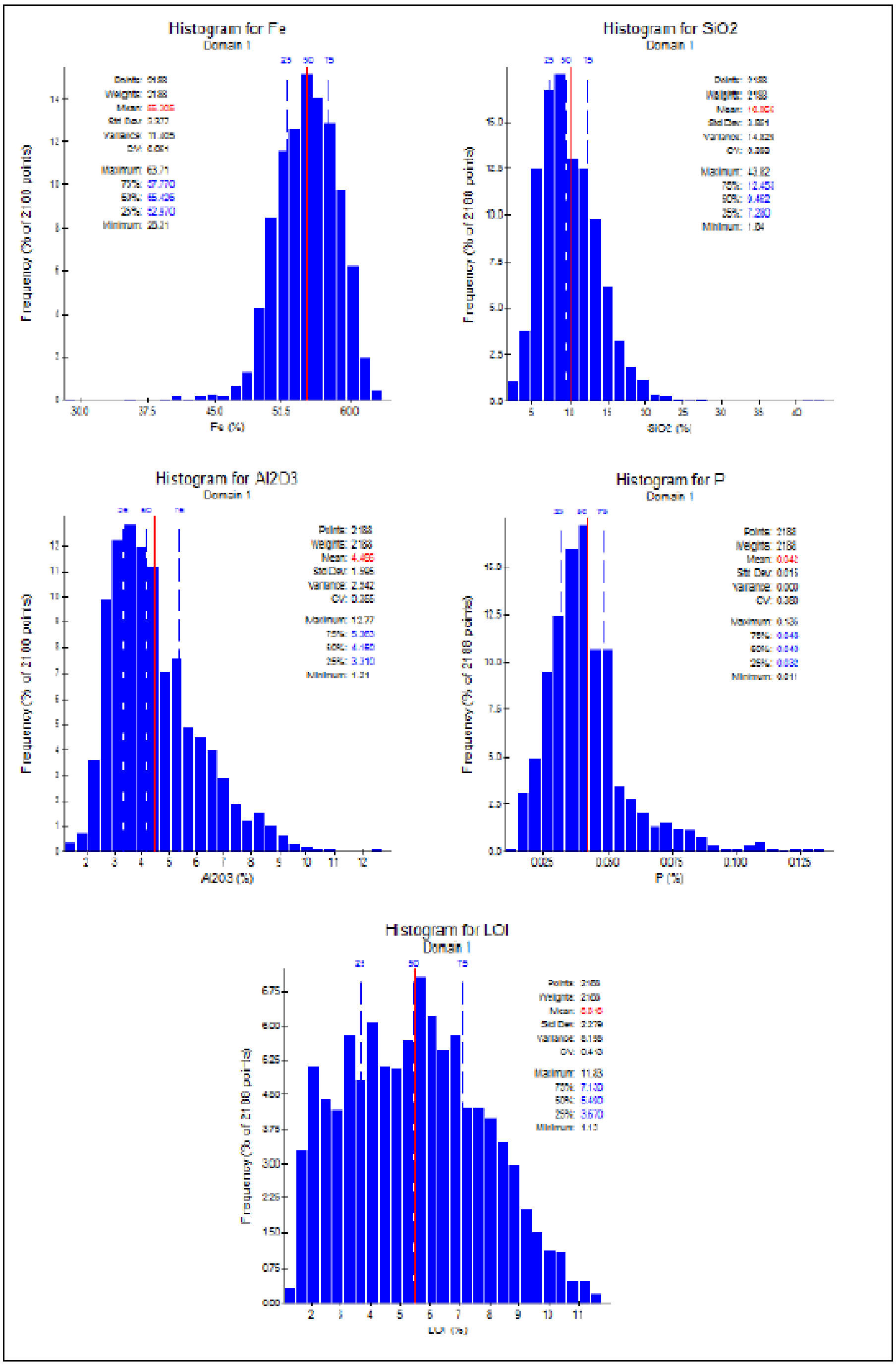

Figure 12: Population Histograms for Fe, SiO_2, Al_2O_3, P and LOI in the CID

High-Grade Cuts

Following a review of the population histograms and log probability plots and noting the low coefficient of variation statistics, it was determined that the application of a high-grade cut was not warranted.

Geostatistical Analysis

Directional variogram models were completed on the DID and CID domains. All variography was completed using Supervisor software.

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To assist in the continuity analysis the data was transformed using a normal scores transformation. Down hole variograms were fitted to nested two structured spherical models to determine the nugget variance, and then directional variograms were prepared to define the directional continuity for five variables (Fe, Al_2O_3, P, SiO_2 and LOI). To determine the nugget variance of the selected data, a variogram with a 2m lag was used, reflecting the down hole composite spacing. This resulted in moderately well-structured variograms with low nugget variances. Figure 13 shows the semi variograms modelled for Fe in the CID.

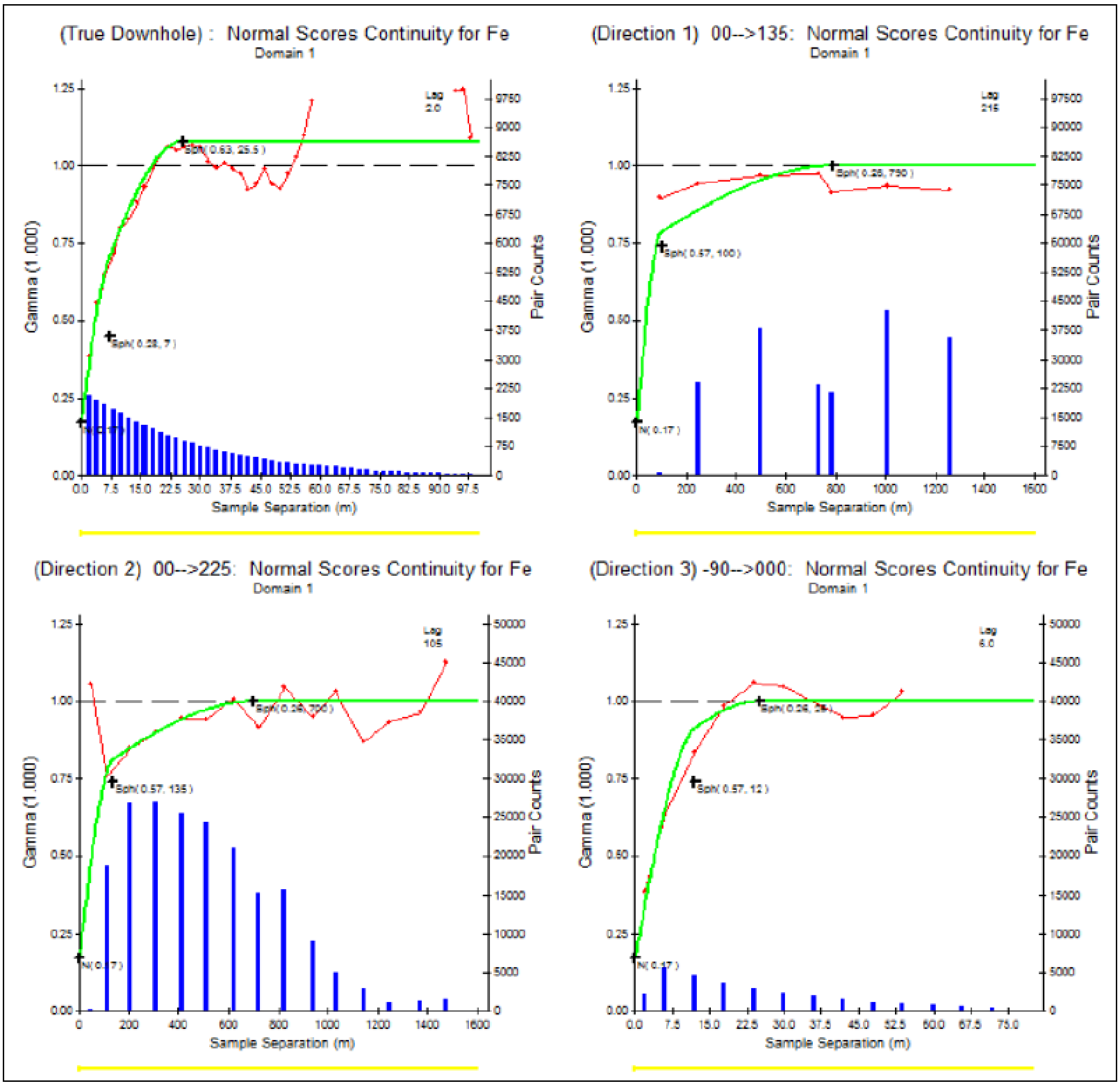

Figure 13: Down Hole and Directional Semi Variograms for Fe in the CID

The directional continuity analysis was back transformed to generate the final kriging parameters which are summarised in Table 8 and Table 9. The directions of maximum continuity matched the interpreted geology.

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The grades were interpolated into a Surpac block model using ordinary kriging (OK) using the nugget, sill values and ranges determined from the variogram models. The ranges obtained from the variogram models were used as a guide in the search ellipse parameters used in the resource estimate.

Element	Major Direction	Nugget	Structure 1				Structure 2		
			C1	A1	Semi	Minor	C2	A2	Semi
Fe	00->135	0.18	0.57	100	0.7	8.3	0.25	790	1.1
SiO_2	00-->135	0.15	0.54	272	1.5	20.9	0.31	875	2.2
Al_2O_3	00-->135	0.14	0.56	274	1.5	11.9	0.3	1000	1.7
P	00-->135	0.04	0.57	280	1	6.4	0.4	900	1.3
LOI	00-->135	0.08	0.43	425	0.9	8.5	0.49	2100	1.6

Table 8: CID Kriging Parameters

Element	Major Direction	Nugget	Structure 1				Structure 2		
			C1	A1	Semi	Minor	C2	A2	Semi
Fe	00-->135	0.19	0.19	500	4.9	50	0.61	630	1.1
SiO_2	00-->135	0.21	0.17	62	1.6	8.9	0.62	620	1.3
Al_2O_3	00-->135	0.13	0.24	805	5.5	80.5	0.64	885	2.2
P	00-->135	0.01	0.36	30	2.5	6	0.6	310	1.2
LOI	00-->135	0.18	0.46	363	3.4	45.4	0.35	600	2.3

Table 9: DID Kriging Parameters

10. Resource Estimation

A Surpac block model was created to encompass the full extent of the deposit. Block model parameters are displayed in Table 10.

The block model used a parent block size of 100m NS by S0m EW by 5m vertical with sub-cells down to 25m by 12.5m by 1.25m.

The parent block size was selected on the basis of approximately 50% of the average drill hole spacing. The dimensions in other directions were selected to provide sufficient resolution to the block model in the across-strike and down-dip direction.

	Y	X	Z
Minimum Coordinates	7,528,500	601,500	400
Maximum Coordinates	7,532,100	606,300	750
Block Size (Sub- blocks)	100 (25)	50 (12.5)	5 (1.25)
Rotation	None		

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Attributes:	
fe	Estimated Fe grade
sio2	Estimated SiO_2 grade
al2o3	Estimated Al_2O_3 grade
P	Estimated P grade
loi	Estimated LOI grade
café	Calculated Calcined Fe grade
ave_dis	Average distance to samples
min_dis	Distance to nearest sample
num_sam	Number of samples used for block grade interpolation
bd	Bulk density
kvar_fe	Kriging Variance for Fe
lease	Lease Identification
mined	y or n
ke	Kriging Efficiency
class	mes, ind, inf (JORC Classification)
class_code	mes=1, ind=2, inf=3, waste=0
pass	1=interpolated in first pass, 2=2nd pass
pod	Wireframe Object Number
type	air, cid, did, inw or undf

Table 10: Block Model Parameter

Grade Interpolation

For all zones in the Hamersley Iron Ore Project, the wireframe objects were used as hard boundaries in the interpolation. That is, only grades inside each object were used to interpolate the blocks inside that object.

Ordinary Kriging (OK) was selected for the grade interpolation method to allow the measured spatial continuity to be incorporated into the model.

Orientated search ellipses, with an ellipsoidal search, were used to select data for interpolation.

Each ellipse was oriented based on the kriging parameters and were consistent with the interpreted geology. Variography parameters of the CID were applied to the internal waste zones where there were insufficient samples to conduct a geostatistical analysis.

Two interpolation passes were used for the interpolations. The first pass estimation radius was based on approximately half the variogram model or long range for each of the elements. For the second pass the search distance was expanded to the variogram range where all remaining cells were estimated. Greater than 99% of the blocks were filled in the first pass. Kriging parameters for Fe in the CID and DID are listed in Table 11 and Table 12.

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Parameter	Pass 1	Pass 2
Search Type	Ellipsoid	Ellipsoid
Bearing	135	
Plunge	0	
Dip	0	
Major-Semi Major Ratio	1	
Major-Minor Ratio	10	
Search Radius (Major)	400	800
Max Vertical Search	999	999
Minimum Samples	12	4
Minimum Samples per Hole	4	4
Maximum Samples	48	48
Block Discretisation	5X by 5Y by 3Z	
Percentage Blocks Filled	>99%	<1%

Table 11: OK Estimation Parameters Fe – CID

Parameter	Pass 1	Pass 2
Search Type	Ellipsoid	Ellipsoid
Bearing	135	
Plunge	0	
Dip	0	
Major-Semi Major Ratio	1.2	
Major-Minor Ratio	20	
Search Radius (Major)	300	600
Max Vertical Search	999	999
Minimum Samples	12	4
Minimum Samples per Hole	4	4
Maximum Samples	48	48
Block Discretisation	5X by 5Y by 3Z	
Percentage Blocks Filled	>99%	<1%

Table 12: OK Estimation Parameters Fe - DID

Density and Material Type

Limited bulk density measurements were available for the Hamersley Iron Project. The values supplied by Terra Search are based on measurements from one diamond hole. The values for waste and detrital mineralisation are consistent with known values from other deposits in the region. The value for the

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CID may be slightly high. Runge also recommended that further detailed bulk density testwork be carried out at the Hamersley Iron Project.

The bulk density values assigned to the block model are tabulated in Table 13.

Type	Model Code	Bulk Density Used (t/ m^3)	Description
Waste	undf or	2.50	All material outside CID or DID
Detrital	did	2.50	Material inside DID resource
Channel	cid	2.59	Material inside CID resource

Table 13: Material Type and Bulk Density

Resource Classification

The Hamersley Iron Ore Project shows reasonable continuity of the main mineralised zones allowing the drill hole intersections to be modelled into coherent, geologically robust wireframes. Consistency is evident in the thickness of the structure, and the distribution of grade appears to be continuous along strike.

The drill hole spacing for the project is approximately 250m along strike, with some infill drilling in the southern portion of the deposit to 125m spaced sections.

The closer drill spacing, along with the good continuity of mineralisation evident in the southern part of the deposit area, is considered adequate to allow classification of the resource as Indicated Mineral Resource. Indicated Mineral Resource has been classified for CID material only. The CID portions of the deposit drilled at spacings of greater than 125m, or material coded as DID material type have been classified as Inferred Mineral Resource.

The resource block model has an attribute "class" for all blocks within the resource wireframes coded as either "ind" for Indicated or "inf" for Inferred.

The Indicated and Inferred portions of the block model are shown in Figure 14.

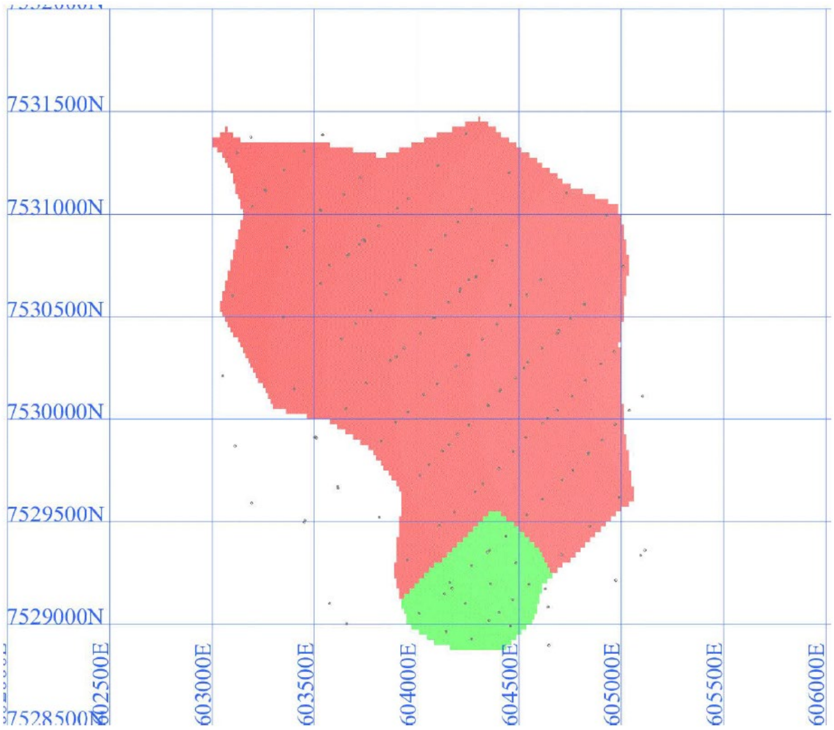

Figure 14: Mineral Resource Classification (Green= Indicated, Red= Inferred)

The JORC Code (2012) describes a number of criteria which should be considered in the documentation of Mineral Resource estimates prior to public release of the information. The criteria provide a means of assessing whether or not parts of or the entire data inventory used in the estimate are adequate for that purpose. The Mineral Resources stated in this document were based on the criteria set out in Table 1 of the JORC Code.

These criteria are listed in Appendix 1.

Results

The results of the Mineral Resource (JORC Code 2012) estimate for the Hamersley Iron Ore Project are summarised in Table 14.

INDICATED MINERAL RESOURCE (JORC 2012)							
Mineralisation Type	**Tonnes Mt**	**Fe %**	**SiO_2 %**	**Al_2O_3 %**	**P %**	**LOI %**	**CaFe[1] %**
Channel (CID)[2]	42.6	55.2	10.9	5.5	0.0	3.6	57.3
Total	**42.6**	**55.2**	**10.9**	**5.5**	**0.0**	**3.6**	**57.3**

INFERRED MINERAL RESOURCE (JORC 2012)							
Mineralisation Type	**Tonnes Mt**	**Fe %**	**SiO_2 %**	**Al_2O_3 %**	**P %**	**LOI %**	**CaFe[1] %**
Detrital (DID)[3]	24.3	46.4	24.8	5.2	0.0	2.5	47.6
Channel (CID) [2]	276.3	55.2	9.7	4.4	0.0	6.3	58.9
Total	**300.6**	**54.5**	**10.9**	**4.4**	**0.0**	**6.0**	**58.0**

TOTAL MINERAL RESOURCE (JORC 2012)							
Mineralisation Type	**Tonnes Mt**	**Fe %**	**SiO_2 %**	**Al_2O_3 %**	**P %**	**LOI %**	**CaFe[1] %**
Detrital (DID)	24.3	46.4	24.8	5.2	0.0	2.5	47.6
Channel (CID)	318.9	55.2	9.8	4.5	0.0	5.9	58.7
Total	**343.2**	**54.5**	**10.9**	**4.6**	**0.0**	**5.7**	**57.9**

*Notes: 1: Calcined Fe (CaFe) calculated by the formula CaFe % = [(Fe%)/100-LOI 1000)]*100*
2: Channel Iron Deposit mineralisation reported at a 52% Fe cut=off grade.
3: Detrital Iron Deposit Mineralisation reported at a 40% Fe cut-off grade.

Table 14: Hamersley Iron Ore Project Indicated and Inferred Mineral Resource Estimate

To show the tonnage and grade distribution throughout the entire deposit, a bench breakdown has been prepared and is shown graphically in Figure 15.

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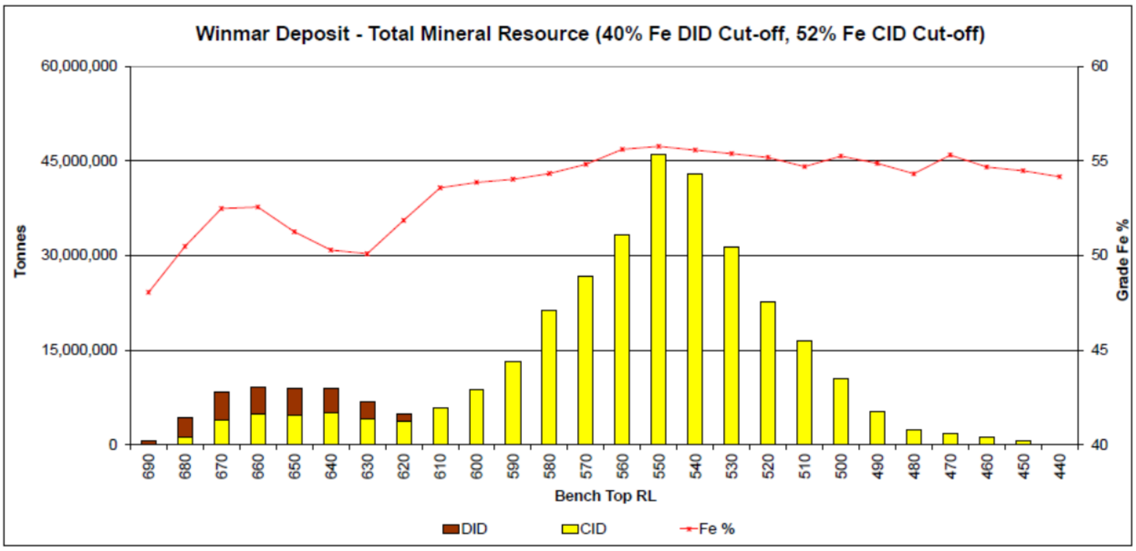

Figure 15: Hamersley Iron Ore Project Mineral Resource - Global Bench Tonnage

The grade tonnage curve for the CID is shown in Figure 16.

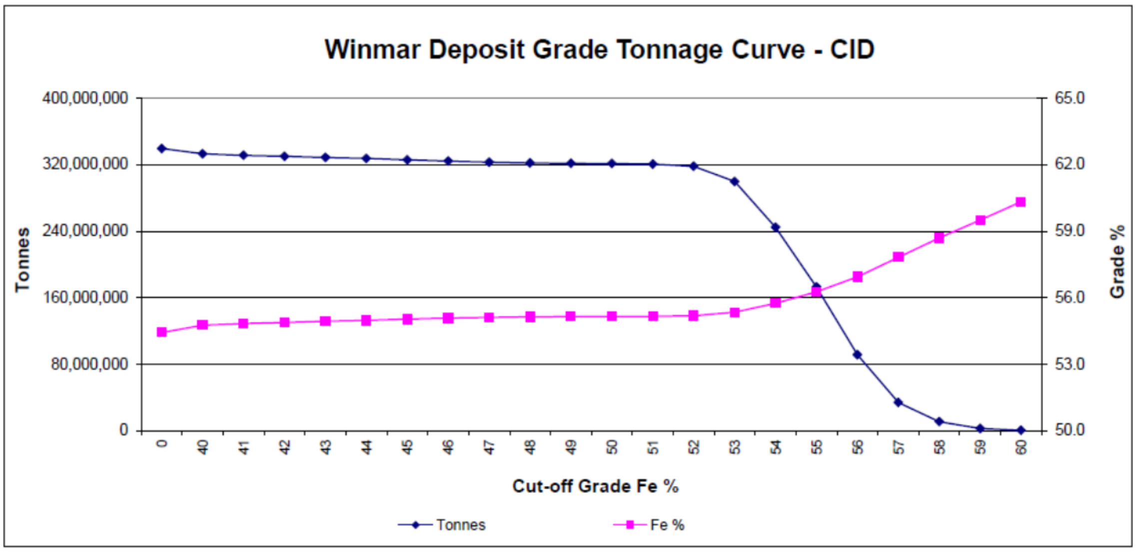

Figure 16: Hamersley Iron Ore Project Mineral Resource - CID Grade Tonnage Curve

The Hamersley Iron Ore Project coloured by Fe grade shown in plan view is displayed in Figure 17 and in long section view in Figure 18. The low grade DID material (blue) is clearly shown overlying the higher-grade CID material. The thickest high-grade zone (>55% Fe) occurs in the south, where the mineralisation is closest to the surface.

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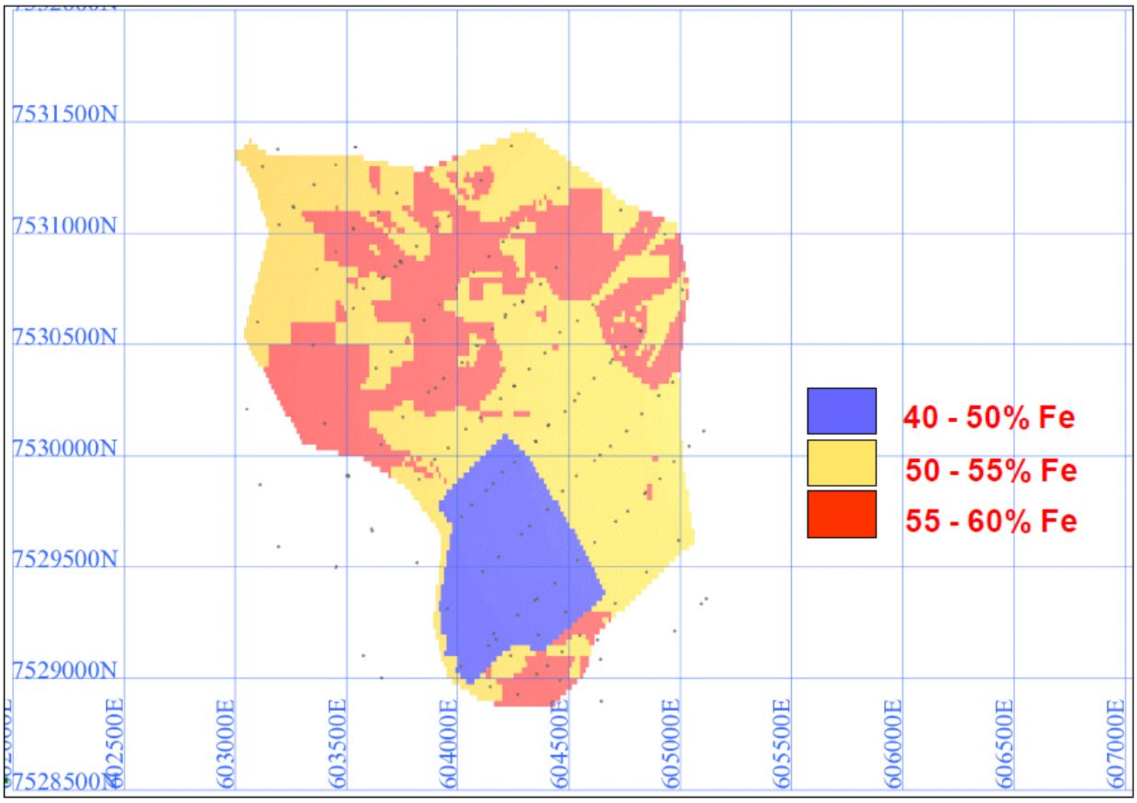

Figure 17 : Hamersley Iron Ore Project Mineral Resource Coloured by Fe - Plan View

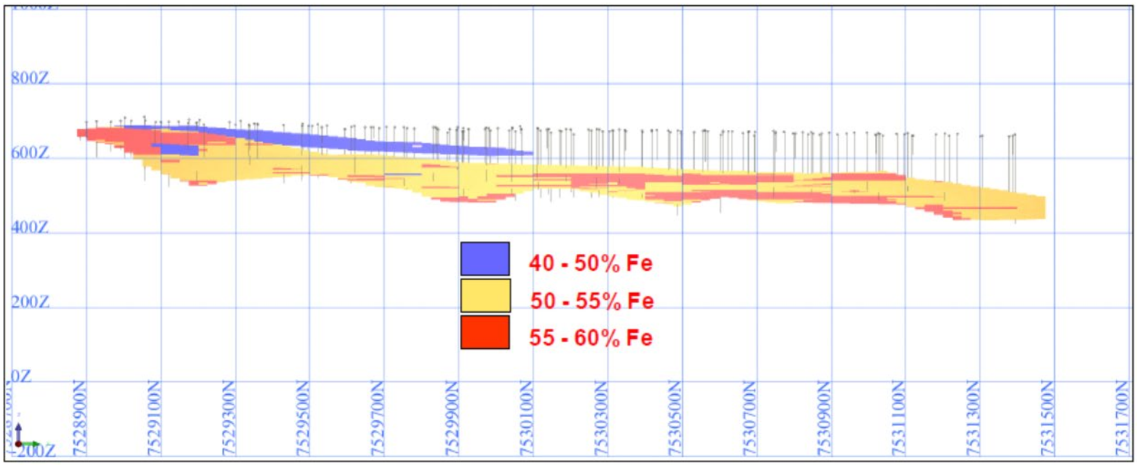

Figure 18: Hamersley Iron Ore Project Mineral Resource Coloured by- Long Section View Facing West

Model Validation

A three step process was used to validate the Hamersley Iron Ore Project Mineral Resource estimate.

Firstly a qualitative assessment was completed by slicing sections through the block model in positions coincident with drilling. Overall the assessment indicated that the trend of the modelled grade appeared consistent with the drill hole grades.

A quantitative assessment of the estimate was completed by comparing the average grades of the composite file input against the block model output for all the resource objects. The results of the comparison are tabulated below.

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	Wireframe	Block Model						Composites					
	Pod Volume	Resource Volume	Fe %	SiO_2 %	Al_2O_3 %	P %	LOI %	Number of Comps	Fe %	SiO_2 %	Al_2O_3 %	P %	LOI %
1	124,179,712	124,221,094	55.13	9.88	4.52	0.041	5.94	2,188	55.31	10.07	4.49	0.042	5.52
2	9,734,583	9,742,188	46.43	24.81	5.24	0.035	2.53	234	46.53	24.65	5.24	0.035	2.56
98	439,058	438,281	39.31	23.64	10.18	0.033	8.23	9	40.73	21.98	10.08	0.034	8.34
99	6,675,675	6,633,984	41.55	25.48	9.33	0.030	4.39	196	40.93	26.55	9.20	0.029	4.27
Total	**141,029,028**	**141,035,547**	**53.84**	**11.69**	**4.82**	**0.040**	**5.64**	**2,627**	**53.4**	**12.64**	**4.92**	**0.040**	**5.17**

Table 15: Average Composite Input v Block Model Output - By Object

As a further check that the interpolation of the block model correctly honoured the drilling data, a trend analysis was completed by comparing the interpolated blocks to the sample composite data.

The trend analysis was completed for elevation in 10m bench heights, and 125m strike panels. Results for Fe of the CID are summarised in Figure 19 and Figure 20.

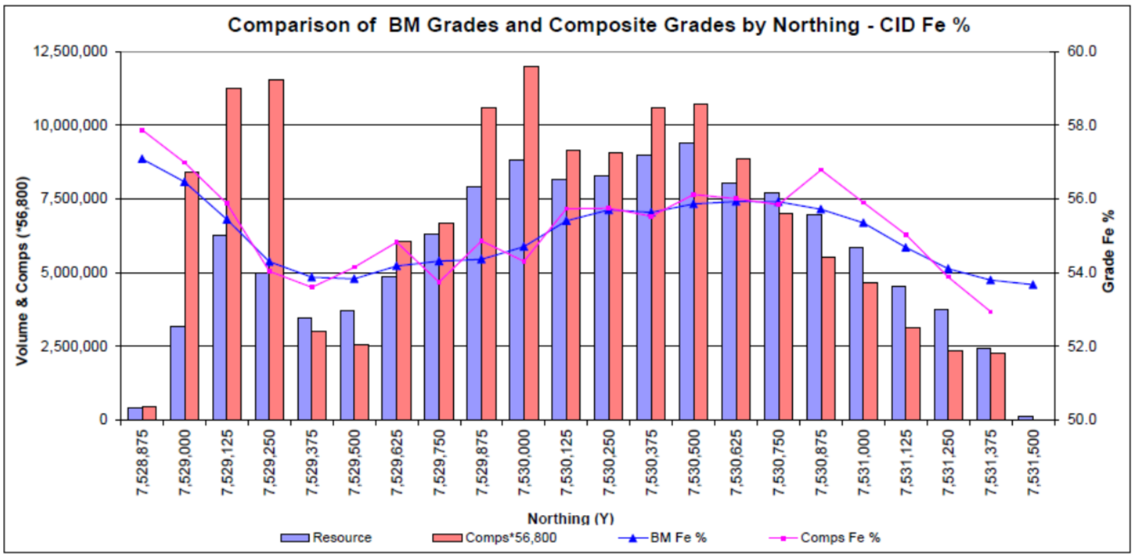

Figure 19: Fe Validation by 125m Northing- CID

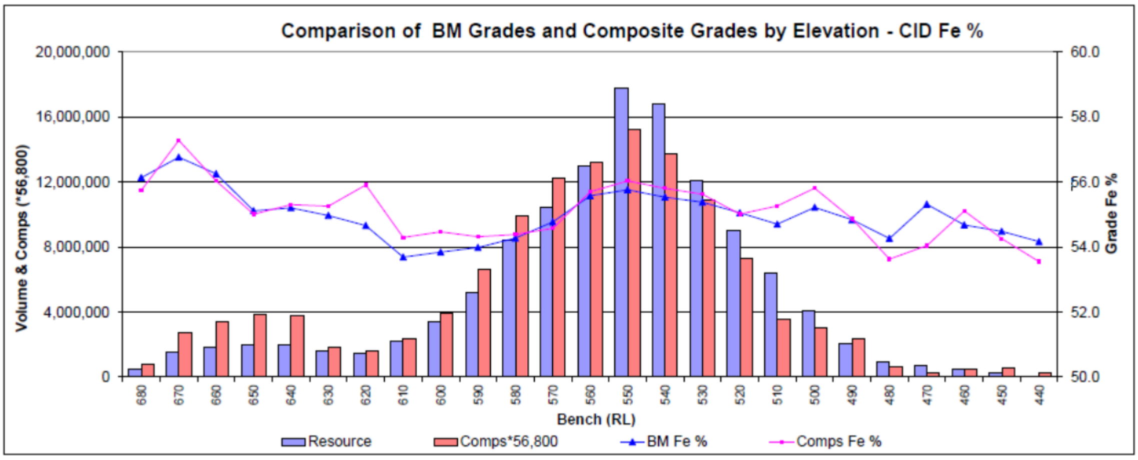

Figure 20: Fe Validation by 10m Elevation - CID

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The validation plot shows good correlation between the composite grades and the block model grades for the comparison by northing and elevation. The trends shown by the raw data are honoured by the block model.

The comparisons show the effect of the interpolation, which results in smoothing of the block grades compared to the composite grades.

11. Resource Estimate Validation and JORC Code (2012) Compliance

AM&A reviewed the Runge May 2013 Mineral Resource JORC Code (2004) report and the methods used to estimate the resources and AM&A consider that the resource estimate and report to be sound and generally meets the standards expected by the current JORC Code (2012).

The only shortcoming in the report identified by AM&A was the reporting of the QAQC procedures and assays, although meeting requirements of the then current JORC Code (2004), did not meet current JORC Code (2012) standards.

AM&A has independently reviewed the data and confirmed that the sampling and assays procedures met the current JORC Code (2012) requirements.

AM&A also independently modelled the resource with MineMap© software using the database after it had been verified free of errors.

The AM&A model used an Inverse Distance Squared algorithm to interpolate the grades into blocks within wireframes very similar to those used by Runge.

AM&A 2019 Model

Type	Tonnes Mt	Fe %	SiO_2 %	Al_2O_3 %	P %	LOI %	CaFe %
Detrital (DID) >40% Fe	21.7	46.3	24.9	5.3	0.03	2.6	47.5
Channel (CID) >52% Fe	308.5	55.5	9.7	4.3	0.04	5.8	58.9
Total	**330.2**	**54.9**	**10.7**	**4.4**	**0.04**	**5.6**	**58.2**

Runge 2013 Model

Type	Tonnes Mt	Fe %	SiO_2 %	Al_2O_3 %	P %	LOI %	CaFe %
Detrital (DID) >40% Fe	24.3	46.4	24.8	5.2	0.03	2.5	47.6
Channel (CID) >52% Fe	318.9	55.2	9.9	4.5	0.04	5.9	58.7
Total	**343.2**	**54.5**	**10.9**	**4.6**	**0.04**	**5.7**	**57.9**

Type	Tonnes Mt	Fe %	SiO_2 %	Al_2O_3 %	P %	LOI %	CaFe %
Detrital (DID) >40% Fe	-2.6	-0.1	0.1	0.1	0.0	0.1	-0.1
Channel (CID) >52% Fe	-10.4	0.3	-0.2	-0.2	0.0	-0.1	0.2
Total	**-13.0**	**0.4**	**-0.2**	**-0.2**	**0.00**	**0.0**	**0.3**
Variation	**-4%**	**1%**	**-2%**	**-5%**	**0%**	**-1%**	**0%**

Table 16: Comparison between Runge and AM&A Mineral Resource models

There was less than 5% variation between the AM&A model and Runge Mineral Resource estimate in tonnes and grades which is well within the expected normal variation between resource models using

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different algorithms with slightly different wireframes. AM&A are therefore comfortable retaining the Runge Mineral Resource estimate.

12. Conclusion

The Hamersley Iron Ore Project Mineral Resource represents a continuous, well-defined zone of channel iron mineralisation (CID). The broad mineralised zone of economic interest is quite regular in geometry and has well defined boundaries. Drilling has confirmed the presence of mineralisation over a strike length of 2,500m.

The Hamersley Iron Ore Project displays reasonable geological and mineralisation continuity from information provided, however due to the wide 250m spacing between most of the drilled cross sections, both geological and grade continuity can only be assumed rather than verified. Therefore, in these sections of the deposit the resources are classified as an Inferred Mineral Resource while in the south-west section of the deposit where the drilling has been in-filled to 125 m spacing the resources are classified as Indicated.

AM&A have confirmed that the Runge May 2013 Mineral Resource estimate, along with the updated QAQC report included meets the standards required by the current JORC Code (2012).

INDICATED MINERAL RESOURCE (JORC 2012)							
Mineralisation Type	**Tonnes Mt**	**Fe %**	**SiO_2 %**	**Al_2O_3 %**	**P %**	**LOI %**	**CaFe[1] %**
Channel (CID)[2]	42.6	55.2	10.9	5.5	0.0	3.6	57.3
Total	**42.6**	**55.2**	**10.9**	**5.5**	**0.0**	**3.6**	**57.3**

INFERRED MINERAL RESOURCE (JORC 2012)							
Mineralisation Type	**Tonnes Mt**	**Fe %**	**SiO_2 %**	**Al_2O_3 %**	**P %**	**LOI %**	**CaFe[1] %**
Detrital (DID)[3]	24.3	46.4	24.8	5.2	0.0	2.5	47.6
Channel (CID) [2]	276.3	55.2	9.7	4.4	0.0	6.3	58.9
Total	**300.6**	**54.5**	**10.9**	**4.4**	**0.0**	**6.0**	**58.0**

TOTAL MINERAL RESOURCE (JORC 2012)							
Mineralisation Type	**Tonnes Mt**	**Fe %**	**SiO_2 %**	**Al_2O_3 %**	**P %**	**LOI %**	**CaFe[1] %**
Detrital (DID)	24.3	46.4	24.8	5.2	0.0	2.5	47.6
Channel (CID)	318.9	55.2	9.8	4.5	0.0	5.9	58.7
Total	**343.2**	**54.5**	**10.9**	**4.6**	**0.0**	**5.7**	**57.9**

*Notes: 1: Calcined Fe (CaFe) calculated by the formula CaFe % = [(Fe%)/100-LOI 1000)]*100*
2: Channel Iron Deposit mineralisation reported at a 52% Fe cut=off grade.
3: Detrital Iron Deposit Mineralisation reported at a 40% Fe cut-off grade.

Table 17: Hamersley Iron Ore Project Indicated and Inferred Mineral Resource Estimate

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This announcement has been approved by the Board of Pathfinder Resources Ltd.

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Forward Looking Statements

Information included in this release constitutes forward-looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward-looking words such as “may”, “will”, “expect”, “intend”, “plan”, “estimate”, “anticipate”, “continue”, and “guidance”, or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs.

Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the Company’s actual results, performance and achievements to differ materially from any future results, performance or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licenses and permits and diminishing quantities or grades of reserves, political and social risks, changes to the regulatory framework within which the company operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation.

Forward looking statements are based on the Company and its management’s good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the Company’s business and operations in the future. The Company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the Company’s business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the Company or management or beyond the Company’s control.

Although the Company attempts and has attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the Company. Accordingly, readers are cautioned not to place undue reliance on forward looking statements. Forward looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law or any relevant stock exchange listing rules, in providing this information the company does not undertake any obligation to publicly update or revise any of the forward-looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.

Competent Person Statement

The information in this report which relates to Exploration Targets, Exploration Results and Mineral Resources or Ore Reserves is based on information compiled by Mr Allen Maynard, who is a Member of the Australian Institute of Geosciences (" AIG"), a Corporate Member of the Australasian Institute of Mining & Metallurgy ("AusIMM") and independent consultant to the Company. Mr Maynard is the Director and principal geologist of Al Maynard & Associates Pty Ltd and has over 40 continuous years of exploration and mining experience in a variety of mineral deposit styles. Mr Maynard has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for reporting of Exploration Results, Exploration Targets, Mineral Resources and Ore Reserves" (JORC Code). Mr Maynard consents to inclusion in the report of the matters based on this information in the form and context in which it appears.

Where the Company refers to previous Exploration Results it confirms that it is not aware of any new information or data that materially effects the information included in previous announcements and all material assumptions and technical parameters disclosed in those announcements continue to apply and have not materially changed.

The Company confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original market announcements.

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APPENDIX 1: JORC CODE, 2012 EDITION –TABLE 1 REPORT

Section 1 Sampling Techniques and Data

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 3kg was pulverised to produce a 30g 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.*	• Drill holes used in the resource estimate include 112 RC holes for a total of 5,245m within the resource wireframes. • The complete database in the project area contains records for 165 drill holes for 22,383m of drilling. Drilling in 1998 was conducted by Robe, from 2008 to 2011 by Cazaly Resources Limited (**Cazaly**,**CAZ**) and from 2012 by Pathfinder Resources Ltd (**Pathfinder**, **PF1**) (formerly Winmar Resources Ltd) (**WFE**)). • RC samples were collected at 1 or 2m intervals from a rig mounted riffle or cone splitter. For CAZ 2008 drilling, 1m samples were composited into 2m samples using a bench splitter. • Diamond and Sonic drill holes have not been assayed.
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).*	• RC drill holes of approximately 140mm diameter were completed using a standard face sampling hammer. • Drill holes were both vertical
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.*	• Actual recoveries from RC drilling were not measured. • Cazaly and Pathfinder (formerly Winmar) consultants Terra Search, reported to Runge that recovery of drill samples from all drilling campaigns were of an acceptable standard.

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Criteria	JORC Code Explanation	Commentary
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.*	• All drill holes have been geologically logged using industry accepted logging systems for rock type, colour, shape, alteration, hardness, moisture and sample recovery • Mineralised zones were identified from observations of mineralogy, lithological characteristics, and geochemist ry. The standard of logging is suitable to support an estimate of Mineral Resources. • All of the samples (100%) recovered from the drill holes completed were logged.
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.*	• All sampling procedures for the Cazaly and Pathfinder (formerly Winmar) drilling was reviewed by Runge and are considered to be of a high standard. • RC prior to 2010 - 1m or 2m samples collected in a plastic bag through a properly designed cyclone and of sufficient weight. A 2m composite sample was collected from 1m samples by using a bench riffle. • RC drilling from 2010-2m samples split using a rig mounted cone splitter and collected in marked calico bags. The majority of samples were dry. • Standards and duplicates were inserted at a frequency of 1 in every 20 samples.
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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision*	• Analysis for Fe, Al2O3, P, SiO2, LOI, Mn and S was completed using XRF in a qualified laboratory after total sample pulverisation in a ring-mill. • The majority of standards submitted report within the required grade range without bias. • The majority of field duplicates are within tolerance of the original assay and without bias. • Runge reviewed internal QAQC reports by Terra Search and confirms that all assay data used

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Criteria	JORC Code Explanation	Commentary
	have been established.	has passed standard industry quality assurance/quality control procedures.
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.*	• No verification sampling or drilling has been carried out. • Data was recorded by the sampling geologist, entered in a company's designed excel spreadsheet before being uploaded to the company's Access database. The excel spreadsheet is designed to detect any errors entered. The Access database contains data QAQC queries.
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.*	• All drill holes used in the resource estimate have been accurately surveyed using DGPS equipment by qualified surveyors. Grid system used was GDA 94. No down hole surveys have been conducted however all holes are drilled vertically.
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.*	• Drill spacing of approximately 250m (along strike) by 100m (on section) was considered adequate to establish both geological and grade continuity for the Mineral Resource estimation and classifications applied. • Samples were composited to 2m for estimation.
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.*	• Vertical holes have been drilled perpendicular to the local strike and dip of the mineralisation. • The drilling has satisfactorily tested the geological structure and grade continuity of the mineralization. • The risk of sample bias is considered to be low.
Sample security	• *The measures taken to ensure sample security.*	• The samples and sub samples were held near the drill program location within a secure area. All samples were individually accredited a sample number, and this was used through the total process from sample preparation through to full analysis. All of this was under the management

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Criteria	JORC Code Explanation	Commentary
		of a qualified geologist.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No external audits were carried out during the drill programs. • Runge conducted a site visit in October 2012 to review the project and the deposit geology and verify drill hole collar locations. • All site drilling and sampling procedures were considered to be standard industry practice. • AM&A has reviewed QAQC results and found them acceptable.

Section 2 Reporting of Exploration Results

(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.*	• Iron Ore Project comprises Mining Lease M47/1450. • Mining Lease M47/1450 was granted on 6th November 2014 and covers an area of 1,042 hectares, and the full area of the mineral resource. • It is located approximately 50 km north-east of Tom Price in the Pilbara region of WA. Pathfinder's (formerly Winmar Resources Ltd) interest is held through an unincorporated joint venture, the Winmar Exploration Joint Venture (**WEJV**), with Pathfinder (formerly Winmar Resources Ltd) (70%) and Lockett Fe Pty Ltd (30%) (a wholly owned subsidiary of Cazaly Resources Limited). • Heritage/Native Title Agreements executed in November 2014 and Environmental Baseline Studies Completed
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Several exploration drilling programs have been carried out since 1998 by Robe River, Cazaly Resources and by Winmar. • Cazaly completed 3 phases of RC drilling at the Hamersley Iron Ore Project. During the first phase, eighteen holes were drilled for 1,795m (PLRC0001 - PLRC0018). For the second phase, a total of 9 drill holes for 1,332m were

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Criteria	JORC Code Explanation	Commentary
		completed (PLRC0022 - LRC0030). Third phase of drilling was completed in May 2011 (PLRC0044 - LRC0136). In total 83 drill holes for 13,035m in a major resource drill-out campaign, testing the full 2.8km strike of the gravity anomaly. • In addition, a program of 3 Sonic drill holes was completed in 2009 for bulk density test work. • Pathfinder Resources Ltd (formerly Winmar Resources Ltd) assumed control of the Hamersley Iron Ore Project in 2012 and completed a 40 RC drill program (PLRC0137 - PLRC0l76) for a total of 5,314m. • The most recent exploration work completed on the Hamersley Iron Ore Project was carried out by Terra Search, independent contractors on behalf of Pathfinder Resources Ltd (formerly Winmar Resources Ltd) including supervising the majority of the RC drilling. • Previous Mineral Resource modelling and estimates were carried out by Runge Limited/Runge Pinnock Minarco Ltd for Pathfinder Resources Ltd (formerly Winmar Resources Ltd).
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Hamersley Iron Ore Project contains two types of iron mineralisation: channel iron (CID) and detrital iron (DID). • CID occurs both in synclinoria and on mild dip slopes on the margin of paleochannels, in addition to mesas formed by relief inversion in the centralzones of paleochannels. CID's are subdivided into "mesa" and "gorge" deposits. Such deposits are dominated by pisolitic goethite-hematite iron mineralisation and incorporate the Marillana Formation CID (gorge) and Robe Formation CID (mesa). The Hamersley Iron Ore Project deposit CID is interpreted as a gorge CID and is completely masked by recent creek sediments. All CID's formed in the Tertiary period. • DID occur as shallow blankets of outwash scree in structural depressions adjacent to iron ore escarpments. The

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<table>
<tr><th>Criteria</th><th>JORC Code Explanation</th><th>Commentary</th></tr>
<tr><td></td><td></td><td>material is derived from the erosion of a surface enriched carapace that encrusted the escarpments. Cyclic fluids result in ferruginisation of the matrix and lowering of the phosphorous content. Cementation can occur towards the base of the detrital pile and form a very hard hematite conglomerate known as canga.</td></tr>
<tr><td>Drill hole Information</td><td>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:
easting and northing of the drill hole collar
elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar
dip and azimuth of the hole
down hole length and interception depth
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.</td><td>The following table summarises the drilling at the Hamersley Iron Ore Project.
<table>
<tr><th></th><th colspan="2">In Project</th><th colspan="3">In Resource</th></tr>
<tr><th></th><th colspan="2">Drill Holes</th><th colspan="2">Drill Holes</th><th>Intersect</th></tr>
<tr><th>Type</th><th>No</th><th>M</th><th>No</th><th>M</th><th>M</th></tr>
<tr><td>RC</td><td>163</td><td>22,146</td><td>112</td><td>17,604</td><td>5,245</td></tr>
<tr><td>DD</td><td>5</td><td>475</td><td>-</td><td>-</td><td>-</td></tr>
<tr><td>Total</td><td>168</td><td>22,621</td><td>112</td><td>17,604</td><td>5,245</td></tr>
</table>
The drilling locations and other details are discussed in the body of this report and the collar details included as an Appendix 2.</td></tr>
<tr><td>Data aggregation methods</td><td>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.</td><td>All intersections quoted in text are length weighted averages and all resource estimates are tonnage weighted averages. No grades/assays were cut or otherwise adjusted.
No High Grade intercepts were reported.
No metal equivalents were reported.</td></tr>
<tr><td>Relationship between</td><td>These relationships are particularly important in the reporting of</td><td>The Mineral Resource modelling was carried out in 3D and all apparent widths</td></tr>
</table>

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Criteria	JORC Code Explanation	Commentary
mineralisation widths and intercept lengths	*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').*	accounted for in the estimation method. • Since the mineral deposits are almost horizontal and the drilling vertical, the drill holes intersected the mineralisation approximately orthogonally. The drill intersection width in most drill holes would be approximately equal to the true width of the mineralisation
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.*	• All the diagrams necessary to describe the Hamersley Iron Ore project are included in the body of the report and ASX Announcement.
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.*	• AM&A believe that the reporting of the Exploration Results in this report is balanced.
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.*	• No other information is being reported within the release.
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 drilling to the southwest of PLRC0161 was recommended to test for an extension of the Mineral Resource. • Further in-fill drilling and bulk density tests were recommended to improve the reliability of future resource estimate. • This additional drilling will be undertaken as required for the further development and mining of the Hamersley Iron Ore Project and completion of addition pre-feasibility and feasibility studies.

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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.*	• All data is stored using a customised Access database. • RPM performed initial database audits in Surpac. • AM&A independently verified the data using MineMap software.
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.*	• Runge conducted a site visit in October 2012 to review the project and deposit geology and verify drill hole collar locations and sign off on the JORC Code. • AM&A has not completed a site visit as it was not deemed necessary. AM&A reviewed the QAQC results and found these to be acceptable.
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.*	• Geological drilling has confirmed iron mineralisation resulting in generally continuous, robust wireframes for detrital and channel and iron mineralisation. • Logging and geological interpretation was completed by geologists experienced in iron mineralisation. There is some risk of misinterpretation in areas of wider spaced drilling with limited assay data, however this is not considered to be material. • Geological interpretation is based on surface mapping, down hole geological logging, geophysics and geochemistry of RC drill samples. • CID and DID stratigraphy at the Hamersley Iron Project is well known, and it is envisaged that any alternative geological interpretation, with or without further drilling, would not have a material impact on the Mineral Resource estimate. • It is not expected that further drilling will materially change the grade and geological continuity.
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 Winmar Fe deposit extends for approximately 2.5 km in a NNW-SSE direction. The mineralisation extends from near surface to 230m below the surface. • The CID mineralised domain is up to

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Criteria	JORC Code Explanation	Commentary
		120m thick.
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 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 (eg 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.*	• The Winmar resource was modelled by Runge Pinnock Minarco in May 2013. • The Winmar deposit was domained based on iron mineralisation type, with all domains applied as hard boundaries in the estimate. • Statistical analysis was carried out on data from each of the two domains. High-grade cuts were not applied as low co-efficients of variation (CV) were observed. • Ordinary kriging was used to estimate average block grades in 2 passes using Surpac software. The majority of cells were estimated during the first pass of interpolation. • Parent block size of 100m NS by 50 m EW by 5m vertical with sub-cells to 25 m by 12.5 m by 1.25 m. No model rotation was undertaken after examining drill hole density and along strike and across strike grade continuity. The parent block size was selected on the basis of approximately 50% of the average drill hole spacing. • Validation was conducted on both domains by elevation and northing. Validation plots showed good correlation between the composite grades and the block model grad es.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages and grades were estimated on a dry in situ basis. No moisture values were reviewed.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• Overall the mineralisation displays good continuity within each domain. • Runge has reported the Mineral

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Criteria	JORC Code Explanation	Commentary
		Resource at a 40% Fe cut-off for DID and 52% Fe cut-off for CID as directed by Terra Search. • Grade-tonnage plots were produced to allow further studies.
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.*	• RPM and AM&A have assumed that the deposit would be mined using open pit techniques • SRK Consulting completed a Scoping Study in 2014 which was based upon mining by conventional open-pit methods.
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.*	• No assumptions have been made regarding metallurgy. • In October 2013, Pathfinder (ASX:PF1) (formerly Winmar (ASX:WFE)) announced the results of metallurgical test work that provided confidence that the resource can be beneficiated through dry crushing and screening, or through additional de-sliming of the material to further upgrade the product. • Composite samples were additionally wet screened and the size fractions assayed to assess the upgrade potential of a de-sliming operation. The Fe grade increased by between 1.4% and 2.4%, and silica and alumina decreased by about 2% for cut sizes of 45 microns and above.
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*	• The mining of the Hamersley Iron Project would be in a similar form to existing mines within the Pilbara Iron Ore province. The project is not located within an environmental reserve and any mining activities would be required to meet the minimum standards as defined for all the existing Iron Ore producers of the region.

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Criteria	JORC Code Explanation	Commentary
	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.	
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 in-situ bulk density was assigned based on results obtained from four diamond holes. • Results indicate a value of 2.59 t/ m^3 for CID, which AM&AA considers comparable to other similar deposits currently being mined in the region. • Further bulk density testwork is recommended.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie 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.*	• Mineral Resources were classified in accordance with the Australasian Code for the Reporting of Identified Mineral Resources and Ore Reserves (JORC, 2012). • The Indicated portion of the resource was defined where the drill spacing was 125m by 100m or less and continuity in both grade and geological structure was demonstrated Indicated Mineral Resource was confined to the CID material. • The Inferred Resource included areas of the CID material where sampling was greater than 125m by 100m and the DID material.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• The original RPM May 2013 Mineral Resource estimate and JORC Code (2004) report was audited by AM&A. With the addition of an independently verified QAQC section, the JORC Code (2004) resource estimate is now

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Criteria	JORC Code Explanation	Commentary
		reported as being compliant with the current JORC Code (2012).
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.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• There is a high level of confidence in the reported resource values for the global resource. The use of ordinary kriging as the estimation technique ensures that any anomalous high grades within the iron ore zones were not over extrapolated and that the resource was very robust. The general consistency of the grades within the domains, the nature of the form of deposition provides the consistency noted at the drilling out of the resource. • The statement references specifically global tonnages within this release. No localised tonnages are referred to apart from domain classifications. • The area has not been mined historically and as such there is no production data from which to compare the estimate against.

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APPENDIX 2: HAMERSLEY IRON ORE PROJECT DRILL HOLE INFORMATION

Hole_ID	Eastings (GDA 94)	Northings (GDA 94)	RL	Depth	Dip
PLRCO00l	604172.4	7529175	704.165	136	-90
PLRC0002	604345.7	7529350	692.89	101	-90
PLRC0003	604537.1	7529532	683.412	122	-90
PLRC0004	604709.7	7529706	684.155	128	-90
PLRC0005	604907.6	7529897	682.811	113	-90
PLRC0006	605106.1	7530110	680.728	134	-90
PLRC0007	605095.2	7529336	689.663	83	-90
PLRC0008	604159.6	7529875	678.493	88	-90
PLRC0009	604350	7530065	685	20	-90
PLRC0010	604348.2	7530068	678.262	146	-90
PLRC0011	604523.5	7530248	677.275	143	-90
PLRC0012	604694.6	7530432	675.633	81	-90
PLRC0013	603621	7534658	629	53	-90
PLRC0014	603625	7535689	640	23	-90
PLRC0015	603897.1	7530305	672.649	104	-90
PLRC0016	604084.1	7530496	672.73	103	-90
PLRC0017	604253.5	7530678	671.652	110	-90
PLRC0018	603720.6	7530852	667.048	107	-90
PLRC0022	603751.3	7530175	672.715	140	-90
PLRC0023	604015.8	7529728	682.729	144	-90
PLRC0024	604255	7529971	678.46	144	-90
PLRC0025	604610.5	7530346	676.598	162	-90
PLRC0026	604824.9	7530189	678.66	140	-90
PLRC0027	604111.2	7529479	692.697	140	-90
PLRC0028	604285.8	7529648	683.147	144	-90
PLRC0029	604470.9	7529841	681.044	150	-90
PLRC0030	604638	7530005	680.369	168	-90
PLRC0042	604290	7530693	661	98	-90
PLRC0043	603743	7530869	663	132	-90
PLRC0044	604289.2	7530695	671.93	162	-90
PLRC0045	604157.1	7530568	672.66	162	-90
PLRC0046	604018.6	7530418	672.85	162	-90
PLRC0047	603866.2	7530285	673.07	156	-90
PLRC0048	603917.9	7530678	669.86	152	-90
PLRC0049	603774.5	7530532	669.77	164	-90
PLRC0050	603631.7	7530393	670.25	146	-90
PLRC0051	604069.3	7530823	669.61	160	-90
PLRC0052	603738.2	7530874	667.04	138	-90
PLRC0053	603573.1	7530749	666.75	150	-90
PLRC0054	603902.6	7531031	666	174	-90
PLRC0055	603530.1	7531018	663.56	121	-90

Hole_ID	Eastings (GDA 94)	Northings (GDA 94)	RL	Depth	Dip
PLRC0056	603351	7531217	660.19	163	-90
PLRC0057	604391.7	7530463	674.89	174	-90
PLRC0058	604251.9	7530313	675.2	180	-90
PLRC0059	604101.1	7530170	675.22	180	-90
PLRC0060	603954.7	7530035	675.37	138	-90
PLRC0061	603822.6	7529894	675.82	192	-90
PLRC0062	604751	7530489	675.24	229	-90
PLRC0063	604125.7	7529844	677.69	163	-90
PLRC0064	604761.4	7529752	683.62	157	-90
PLRC0065	604613.7	7529611	683.87	151	-90
PLRC0066	604355.3	7529359	692.24	115	-90
PLRC0067	604536.8	7530609	673.42	162	-90
PLRC0068	605038.9	7530043	681.45	144	-90
PLRC0069	604990.7	7529620	686.51	127	-90
PLRC0070	604847.7	7529478	686.14	145	-90
PLRC0071	604708.4	7529337	686.42	103	-90
PLRC0072	605117.8	7529359	689.63	91	-90
PLRC0073	604972.4	7529215	689.68	85	-90
PLRC0074	603194.8	7531039	660.73	150	-90
PLRC0075	603262.4	7531116	661.26	133	-90
PLRC0076	603449.5	7531306	660.46	151	-90
PLRC0077	603539.3	7531388	660.85	157	-90
PLRC0078	603723.8	7531181	663.77	168	-90
PLRC0079	603642.3	7531096	663.99	186	-90
PLRC0080	603449.1	7530917	664.26	156	-90
PLRC0081	603365	7530837	664.11	150	-90
PLRC0082	604202.8	7530961	668.61	162	-90
PLRC0083	604138.7	7530895	669.13	168	-90
PLRC0084	603701.5	7530468	669.88	162	-90
PLRC0085	603847.3	7530609	670.01	156	-90
PLRC0086	603958.9	7531076	665.81	175	-90
PLRC0087	604212.4	7530634	672.55	169	-90
PLRC0088	604441.4	7530846	670.53	163	-90
PLRC0089	604606	7530679	672.9	151	-90
PLRC0090	604965.5	7530331	677.76	145	-90
PLRC0091	604903.6	7530270	678.41	157	-90
PLRC0092	604755.6	7530111	679.58	163	-90
PLRC0093	604684.7	7530043	679.83	175	-90
PLRC0094	604531.3	7529912	680.43	181	-90
PLRC0095	604402.3	7529761	681.12	163	-90
PLRC0096	604823.5	7530561	675.38	84	-90
PLRC0097	604684.4	7530418	675.9	174	-90
PLRC0098	604542.6	7530278	677.21	180	-90

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Hole_ID	Eastings (GDA 94)	Northings (GDA 94)	RL	Depth	Dip
PLRC0099	604482.7	7530200	677	168	-90
PLRC0100	604199.7	7529926	678.29	162	-90
PLRC0101	604059.1	7529780	679.78	162	-90
PLRC0102	604323.2	7529686	681.06	157	-90
PLRC0103	604183.8	7529546	688.26	127	-90
PLRC0104	604971.6	7529973	682.03	145	-90
PLRC0105	604840.5	7529832	683.14	145	-90
PLRC0106	604191.7	7532389	653.58	145	-90
PLRC0107	604367	7532569	652.9	115	-90
PLRC0108	603813.1	7530942	666.77	181	-90
PLRC0109	604457.6	7530555	673.88	180	-90
PLRC0110	604320.8	7530392	674.84	180	-90
PLRC0111	604191.5	7530256	675.37	180	-90
PLRC0112	604033.7	7530118	675.27	180	-90
PLRC0113	603896.4	7529985	674.97	192	-90
PLRC0114	603660	7530798	666.56	181	-90
PLRC0115	604269.7	7531026	667.99	180	-90
PLRC0116	603189.2	7531378	658.57	180	-90
PLRC0117	603120.4	7531300	658.61	186	-90
PLRC0118	604369.3	7530774	671.2	192	-90
PLRC0121	603530.2	7530663	667.33	162	-90
PLRC0122	604090.3	7530497	672.7	198	-90
PLRC0123	604409.1	7530142	677.85	174	-90
PLRC0125	604269.6	7529284	697.15	156	-90
PLRC0135	604720.6	7532927	651.53	144	-90
PLRC0136	603455.9	7533069	643.98	108	-90
PLRC0137	603656.7	7529003	709.088	110	-90
PLRC0138	603613.4	7529671	683.551	30	-90
PLRC0139	603454.1	7529505	686.717	42	-90
PLRC0140	603450.8	7529496	686.984	102	-90
PLRC0141	603504	7529913	673	24	-90
PLRC0142	603500	7529910	673	120	-90
PLRC0143	603508.4	7529909	672.752	180	-90
PLRC0144	603191.7	7529594	677.935	84	-90
PLRC0145	603401.5	7530147	668.613	186	-90
PLRC0146	603109.1	7529869	669.09	132	-90
PLRC0147	603349	7530498	666.643	180	-90
PLRC0148	603050.5	7530209	664.493	168	-90
PLRC0149	603097.9	7530603	663.412	210	-90
PLRC0150	605008.5	7530745	673.234	180	-90
PLRC0151	604928.6	7530995	669.55	156	-90
PLRC0152	604732.5	7531105	667.826	156	-90
PLRC0153	604451.5	7531205	666.958	180	-90

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Hole_ID	Eastings (GDA 94)	Northings (GDA 94)	RL	Depth	Dip
PLRC0154	604239.7	7531394	663.894	240	-90
PLRC0155	603614.3	7529664	683.674	156	-90
PLRC0156	603814.9	7529521	691.878	144	-90
PLRC0157	603953.5	7529314	701.295	156	-90
PLRC0158	604161.8	7529204	702.859	162	-90
PLRC0159	603652.2	7530052	672.395	186	-90
PLRC0160	604104.4	7531239	665.261	228	-90
PLRC0161	604011.9	7529055	710.866	138	-90
PLRC0162	604402.7	7529057	702.014	162	-90
PLRC0163	604255.8	7530314	675.249	80	-90
PLRC0164	604267	7528927	713	96	-90
PLRC0165	604547	7529195	693	156	-90
PLRC0166	604361	7529196	689	168	-90
PLRC0167	604238	7529100	694	108	-90
PLRC0168	604457	7528991	704	78	-90
PLRC0169	604642	7529085	691	60	-90
PLRC0170	604645	7528899	704	42	-90
PLRC0171	604470	7529121	690	174	-90
PLRC0172	604435	7529429	693	156	-90
PLRC0173	604484	7529300	685	138	-90
PLRC0174	604627	7529173	679	72	-90
PLRC0175	604353	7529020	718	96	-90
PLRC0176	604146	7528965	702	78	-90
PLRD0119	604211.1	7530624	672.64	170	-90
PLRD0120	603666	7530804	666.28	67	-90
PLRD0124	604404.9	7530137	677.82	51	-90
PLRD0126	604841.4	7529837	683.08	51	-90
PLRD0127	604613.4	7529980	680.2	51	-90
PLRD0128	604820.6	7530562	675.25	51	-90
PLRD0129	603994.4	7530750	669.77	51	-90
PLRD0130	603741.2	7530874	666.95	51	-90
PLRD0131	603530.3	7531021	663.52	51	-90
PLRD0132	603258.1	7531121	661.17	51	-90
PLRD0133	603541.2	7531387	660.85	51	-90
PLRD0134	603935.3	7530348	672.71	51	-90
5B022	604136	7529147	698	124	-90
5B023	603574	7529101	696	26	-90
5B024	601930	7528883	658	10	-90

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