

21 December 2016



## Atlas delivers positive results from Corunna Downs DFS

Atlas Iron (ASX: AGO) is pleased to announce the results of Atlas' 100% owned Corunna Downs Project Definitive Feasibility Study (DFS).

### Highlights

- **Initial annual production of 4Mtpa of Direct Shipping Ore (DSO)**
- **Capital Expenditure estimate of A\$47M to A\$53M to develop project (incl. contingency)**
- **C1 cost estimate in the range of A\$37 to A\$43/wmt**
- **Life of mine breakeven price estimated at ~US\$50/dmt (62%Fe index price, assuming C1 cost \$43/wmt, exclusive of development capital, F/X rate of A\$1.00 = US\$0.75)**
- **Full cash cost estimate in the range of A\$49 to A\$55/wmt**
- **First ore on ship from Corunna expected in the March 2018 Quarter, subject to Atlas making an investment decision in the March 2017 Quarter**
- **Low strip ratio of 0.6 : 1**
- **Lump & fines production in ratio of ~ 50:50**
- **Ore Reserve is 21.0Mt @ 57.0% Fe from a Mineral Resource of 64.1Mt @ 57.2% Fe.**
- **Life of Mine 5 to 6 years with potential to extend with current Ore Reserve only coming from the above water table Resource.**
- **Low project capex a result of plans to recycle existing equipment and infrastructure**
- **Further opportunities to generate additional value from the project**

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### Results of DFS

The Corunna Downs (Corunna) project has the potential to deliver 4Mtpa of Lump and Fines DSO over an initial mine life of 5 to 6 years. There are upside opportunities to extend the mine life by exploiting both the below water table Resources and the Glen Herring Mineral Resource.

Capital expenditure estimate is in the range A\$47M to A\$53M (incl. contingency), C1 cost estimate in the range A\$37 to A\$43/wmt, and Full cash cost estimate in the range A\$49 to A\$55/wmt are demonstrated under the DFS. A life of mine breakeven price of ~US\$50/dmt (62%Fe index price, assuming C1 cost A\$43/wmt, exclusive of development capital, F/X rate of A\$1.00 = US\$0.75). Value engineering and further commercial discussions are underway to reduce operating costs to the low end of these ranges.

A decision on whether or not the Corunna project will proceed to development is expected to be made by the Board in the March 2017 Quarter, and will be subject to achieving a satisfactory funding solution. Atlas will continue to progress approvals for the Corunna project during the March 2017 Quarter at minimal cost (already included in FY2017 Guidance). Subject to Atlas making an investment decision in the March 2017 Quarter, first ore on ship from the Corunna project is targeted in the March 2018 Quarter.

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## Project Summary

The Corunna DFS is built around a mine comprised of the following key elements:

- 22km Public Road upgrade and 13km Mine Access Road
- 4 open pits - conventional drill & blast, truck/excavator mining operation
- Processing plant - dry crush & screen
- 152 man camp (relocated from Wodgina/Pardoo) Road train haulage of 237km to Port Hedland (Mt Webber - 231km from Port Hedland)

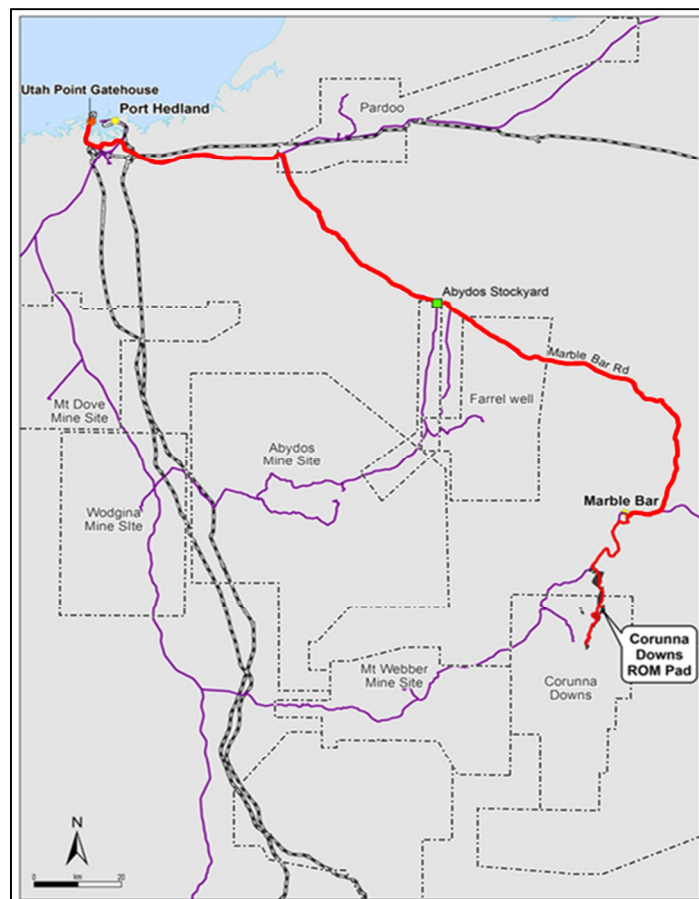
Atlas will progress the following opportunities and commercial discussions to reduce operating costs to the lower end of the stated ranges:

- a. Increase in the production rate to 5Mtpa
- b. Continuation of current Pilbara Port Authority price relief post 30<sup>th</sup> June 2017
- c. Reduced haulage costs by achieving approval for higher payload road trains
- d. Potential improvement in contractor pricing
- e. The potential for contractor collaboration (DFS has not assumed this)
- f. Optimise location of the ROM Pad and plant location to reduce the mining cost

By way of a guide, the combination of a) to d) above has potential to reduce the upper end of the C1 cost range to less than A\$38/wmt.

## Mine Location

The Corunna project is located approximately 237km by road from Port Hedland and 33km from Marble Bar.



**Regional location plan**

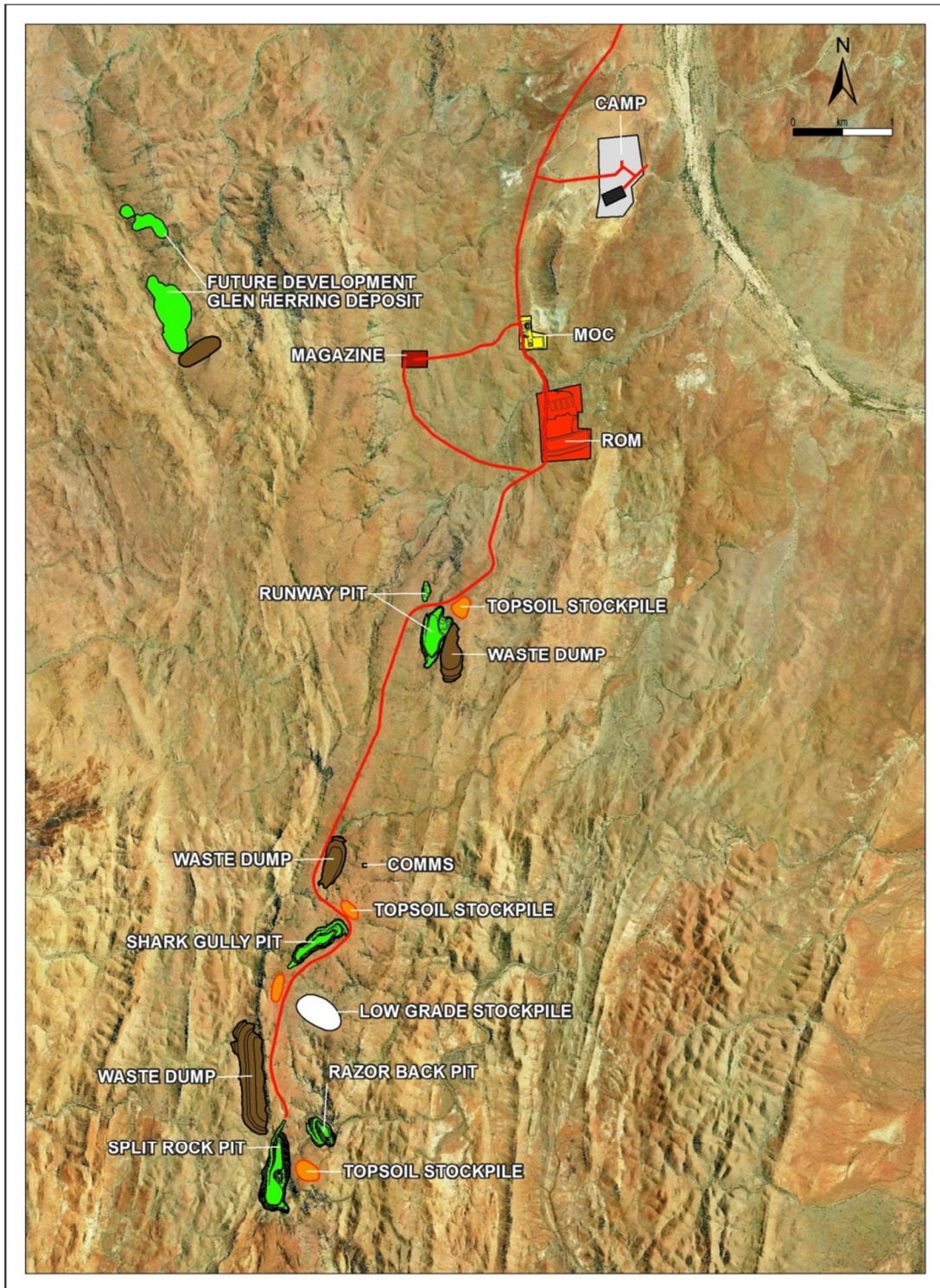


## Mineral Resource and Ore Reserve

The Mineral Resource of Corunna is 64.1Mt @ 57.2% Fe. The Ore Reserve is 21.1Mt @ 57.0% Fe. Full details of the Mineral Resource and Ore Reserve are set out in Appendix 2.

## Mining

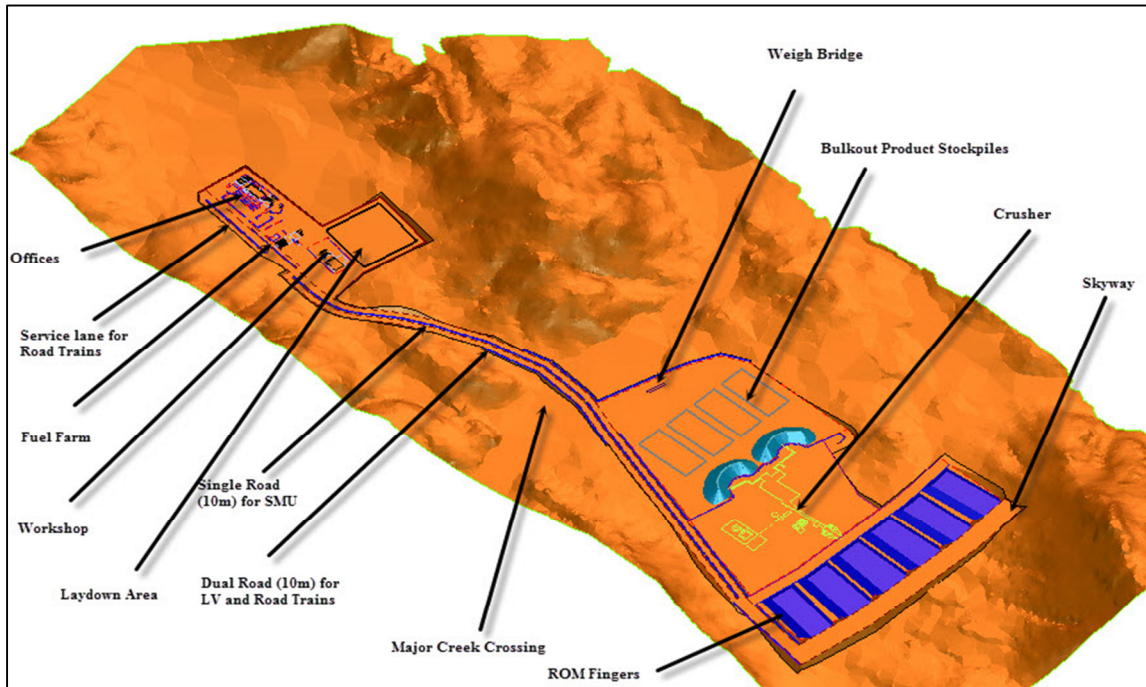
Mining at Corunna Downs is expected to be undertaken using a proven mining contractor to mine four open pits using conventional mining methods of drill and blast, and truck and excavator load and haul. The diagram below is a general site layout showing the relationship between the pits and the ROM pad.



**General Site Layout**

## Processing

The envisaged plant is a semi - mobile, dry crush and screen plant, typical of those at other Atlas operations. The plant would produce a minimum of 4Mtpa of Lump and Fines and be owned and operated by a contractor. The Plant, ROM and Product Yard would be located at the base of the Corunna Range. The schematic below illustrates the location of the ROM, Plant and Product Stockyard in relation to each other.



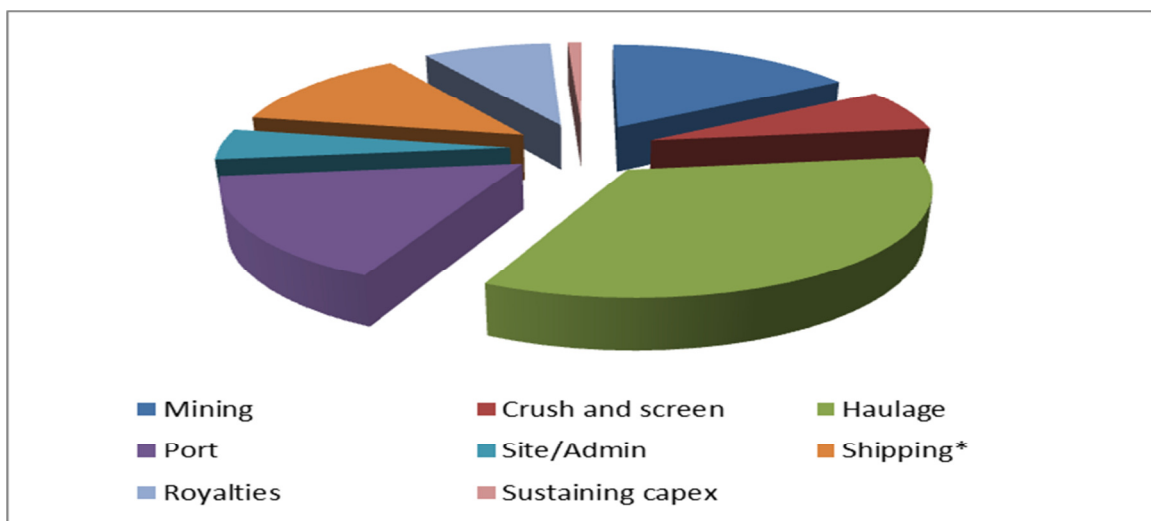
**ROM, Plant and Stockyard Layout**

## Haulage

Product would be hauled from the mine to Utah Point by road train, using a haulage contractor. The DFS assumes road trains will travel from the mine to the outskirts of Marble Bar, at which point they will meet the Marble Bar road and continue from there into port along existing sealed roads.

## Operating Cost Estimate

C1 cost is estimated in the DFS in the range of A\$37 to A\$43/wmt and the Full cash cost in the range A\$49 to A\$55/wmt, with the breakdown illustrated below.

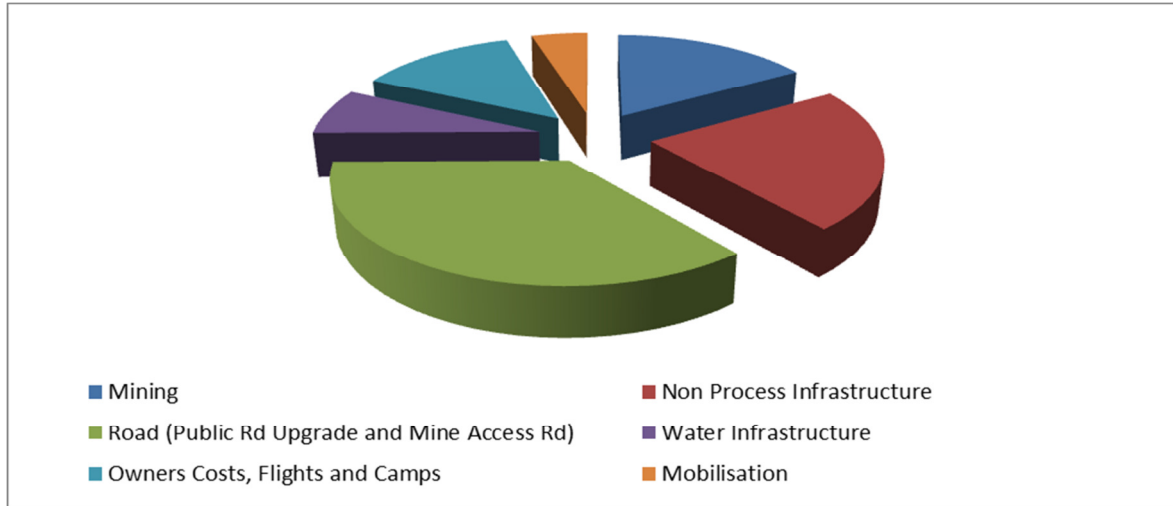


**Breakdown of Full cash costs**



## Capital Cost Estimate

The initial capital expenditure for the Corunna project, based on a production capacity of up to 5Mtpa, is estimated in the DFS to be in the range of A\$47M to A\$53M (inclusive of contingency). The capital cost estimate for the Corunna project is based on detailed contractor quotes and estimates. As stated previously the low project capex is in part due to the current plan to recycle existing equipment and infrastructure from existing and or previous Atlas mining operations.



**Breakdown of Capital Cost**

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### Notes:

1. See Appendix 2 for JORC Code information and Table 1 assessment and report criteria relating to the Mineral Resource for the Glen Herring deposit.
2. Split Rock, Runway and Shark Gully Mineral Resources JORC Code information and Table 1 previously reported in ASX announcement dated 23 December 2015
3. Razorback Mineral Resource JORC Code information and Table 1 previously reported in ASX announcement dated 8 May 2014.
4. All costs in this announcement are quoted in Australian dollars (A\$) unless otherwise stated.
5. The cost estimates are deemed suitable for a DFS-level estimate at  $\pm 15\%$  accuracy, but are indicative only and should be considered accordingly.

## **APPENDIX 1**

### **DFS ASSUMPTIONS**

Assumptions		DFS	
		Lump	Fines
Benchmark discount	%	6.8	9.0
Fe grade	%	57.7	56.1
Moisture	%	2.5	4.5
Foreign exchange	AUD:US\$	0.75	
Lump : fines split	%	54 : 46	
Strip ratio	Waste : Ore	0.6 : 1.0	

Note that the Lump and Fines Fe grades above represent an average produced from the site, as distinct from the Fe grade of the export product once blended with Mt Webber Lump and Fines.

## **APPENDIX 2**

### **CORUNNA DOWNS JORC CODE 2012 MINERAL RESOURCE SUMMARY**

#### **Mineral Resource Table**

Corunna Downs Mineral Resource Table – As at 30 Nov 2016										
Deposit	COG Fe%	Resource Classification	Kt <sup>(a)</sup>	Fe(%)	SiO <sub>2</sub> (%)	Al <sub>2</sub> O <sub>3</sub> (%)	P(%)	S(%)	LOI(%)	CaFe(%) <sup>(b)</sup>
Split Rock	50	Measured								
		Indicated	22,100	57.1	6.5	1.5	0.12	0.01	9.0	62.7
		Inferred	3,400	56.9	7.2	1.4	0.11	0.01	8.9	62.5
Shark Gully	50	Measured								
		Indicated	8,900	57.6	5.5	2.2	0.09	0.01	9.4	63.6
		Inferred	200	56.9	6.6	2.3	0.07	0.01	9.0	62.5
Runway	50	Measured								
		Indicated	11,100	57.3	5.3	2.1	0.04	0.01	9.7	63.5
		Inferred	300	56.3	7.8	2.2	0.04	0.01	8.9	61.8
Razorback	50	Measured								
		Indicated								
		Inferred	5,900	57.1	5.5	1.8	0.04	0.01	10.0	63.5
Glen Herring	50	Measured								
		Indicated	9,000	57.0	7.5	1.5	0.04	0.01	8.9	62.6
		Inferred	3,300	56.8	8.5	1.5	0.05	0.01	8.0	61.8
Subtotal		Measured								
		Indicated	51,100	57.2	6.3	1.8	0.08	0.01	9.2	63.0
		Inferred	13,000	57.0	6.8	1.7	0.06	0.01	9.2	62.7
<b>TOTAL</b>			<b>64,100</b>	<b>57.2</b>	<b>6.4</b>	<b>1.7</b>	<b>0.08</b>	<b>0.01</b>	<b>9.2</b>	<b>63.0</b>

(a) Iron Ore Resource tonnes are reported on a dry weight basis

(b) Calculated calcined Fe grade where  $CaFe = (Fe\% / (100 - LOI\%)) * 100$

## Changes to Mineral Resource Inventory

The Corunna Downs Mineral Resource Inventory has changed since ASX release "Mineral Resources and Ore Reserves at 30 June 2016" dated 22nd September 2016.

An update to the Glen Herring Mineral Resource estimate has been completed based on the results of additional infill drilling completed in late 2015. The deposit now has a nominal drill spacing of 40m x 40m in the southern area which provides an appropriate level of confidence to classify much of the Mineral Resource as Indicated. The total Mineral Resource saw a decrease of 1.27Mt however 73% of the total is now classified as Indicated.

## **CORUNNA DOWNS JORC 2012 ORE RESERVES SUMMARY**

### **Ore Reserve Table**

Corunna Downs Ore Reserves Table - As at 30 June 2016										
Deposit	COG %Fe	Reserve Classification	Kt	Fe(%)	SiO <sub>2</sub> (%)	Al <sub>2</sub> O <sub>3</sub> (%)	P(%)	S(%)	LOI(%)	CaFe(%) <sup>(a)</sup>
Runway	53	Proved Probable	4,467	56.9	5.3	2.6	0.04	0.02	9.7	63.1
Split Rock	51	Proved Probable	11,838	57.0	6.4	1.8	0.13	0.01	9.0	62.6
Shark Gully	51	Proved Probable	4,755	57.1	5.9	2.5	0.10	0.02	9.5	63.1
Sub Total		Proved Probable	21,060	57.0	6.0	2.1	0.1	0.0	9.3	62.8
Total			21,060	57.0	6.0	2.1	0.1	0.0	9.3	62.8

(a) Calculated calcined Fe grade where  $CaFe = (Fe\% / (100 - LOI\%)) * 100$

## COMPETENT PERSONS STATEMENT

Mineral Resource and Ore Reserves - Compliance with the JORC code assessment criteria

This Mineral Resource and Ore Reserve statement has been compiled in accordance with the guidelines defined in the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code - 2012 Edition).

Geological Data, Interpretation and Resource Estimation – Corunna Downs

The information in this report that relates to Geological Data, Interpretation and Mineral Resource estimations for the Corunna Downs deposits is based on information compiled by Mr. Leigh Slomp who is a member of the Australasian Institute of Mining and Metallurgy. Leigh Slomp is a full time employee and shareholder of Atlas. Leigh Slomp has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he has undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Leigh Slomp consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.

**Glen Herring Mineral Resource Estimate – November 2016**

**JORC Code 2012 TABLE 1**

**CHECKLIST OF ASSESSMENT AND REPORTING CRITERIA**

CRITERIA	EXPLANATION
<b>SAMPLING TECHNIQUES AND DATA</b>	
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>Reverse circulation (RC) drilling was used to obtain 2.0m downhole interval samples.</li> <li>The samples were passed through a cone splitter to collect a nominal 4.0-6.0kg sample (approximately 10% split ratio) into pre-numbered calico bags.</li> <li>Duplicate samples taken at a set frequency of one every twenty samples (5% of total samples) from the cone splitter to monitor sampling representivity.</li> <li>Geophysical gamma density measurements collected down hole by ABIMS geophysical contractor using a Geovista Dual Density logging tool (Caesium source, density range 1.25 - 4.5g/cc) to ascertain approximate in-situ density values. The tool is regularly calibrated every 2 weeks using a range of known media and a calibration hole.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>Reverse Circulation drilling employing a 140mm diameter face sampling hammer.</li> <li>A nominal drill hole spacing of 40m NW-SE (azimuth 150°-330°) x 40mNE-SW (azimuth 60°-240°) and 80m NW-SE (azimuth 150°-330°) x 40mNE-SW (azimuth 60°-240°) have been completed for this resource update.</li> <li>A total of 2 diamond drill holes totalling 173m and 68 RC holes totalling 7,766m have been drilled.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>RC sample recovery is logged at the drill site by the geologist, based on the volume of sample returned from the cone splitter. This is recorded as either good, fair, poor or no sample recovered. Of the total 3,883 RC samples collected, 3,846 (99%) were recorded as good, 19 (0.48%) were recorded as fair and 18 (0.46%) were recorded as poor. No samples recorded as “no sample return”</li> <li>No significant sample recovery issues were encountered.</li> <li>To ensure maximum sample recovery and representivity of the samples, the field geologist was present during drilling, continuously monitoring the sampling process. Any issues were immediately rectified.</li> <li>Atlas is satisfied that the RC holes have taken a sufficiently representative sample of the mineralisation and minimal loss of fines has occurred in the RC drilling resulting in minimal sample bias.</li> <li>All samples are weighed at the laboratory to continually monitor and record sample size.</li> <li>No relationship between sample recovery and grade has been demonstrated.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>Logging of every 2m interval corresponding with 2m sampled interval. This level of detail is supportive and appropriate for Mineral Resource estimation, mining and metallurgical studies for a bulk commodity such as iron ore.</li> <li>RC logging is both qualitative and quantitative in nature.</li> <li>RC Logging records the abundance/proportion of specific minerals/material types and lithologies, hardness recorded by physical chip percentage measurement, weathering and colour.</li> <li>The entire lengths of RC holes were logged on a 2m interval basis, and 100% of the drilling was logged.</li> <li>67 out of 70 holes were down hole geophysically logged (or attempted) for Natural Gamma, Resistivity, Gamma Density, Caliper and Magnetic Susceptibility.</li> <li>Not all holes remained open at depth which precluded 100% coverage of geophysical measurements from all of the drill holes.</li> </ul>
<b>Sub-sample techniques</b>	<ul style="list-style-type: none"> <li>Of the 3,883 RC samples collected, 3,337 (85.9%) reported as dry, 146 (3.8%) wet and 114 (3.4%) samples were listed as moist. 137 samples (6.9%) were water/moisture injected during</li> </ul>



	<p>drilling.</p> <ul style="list-style-type: none"> <li>• Where RC samples were considered to be large (&gt;6kg), they were crushed down to 3mm fraction and rotary split down to produce a smaller sample suitable for pulverizing. Coarse duplicates are taken by the lab at a ratio of 1:10 to monitor this process.</li> <li>• Sample weight/split analysis shows that on average at least 10% split ratio is being achieved consistently through the cone splitter primary and duplicate sampling ports.</li> <li>• Duplicate sample analysis show the data has acceptable precision, indicating that the sampling technique is appropriate for the deposit</li> <li>• The sample sizes were considered to be appropriate to correctly represent the mineralisation (massive goethite/hematite), the thickness and consistency of intersections, the sampling methodology and percent values assay ranges for the primary elements.</li> </ul>
<p><b>Quality of assay data and laboratory tests</b></p>	<ul style="list-style-type: none"> <li>• All samples were submitted to SGS Laboratory in Perth and Intertek at Mt Webber mine site and assayed for the extended iron ore suite (21 elements at SGS and 17 elements at Intertek) by XRF and a total LOI by thermogravimetric (TGA) methods. The method used is designed to measure the total amount of each element in the sample.</li> <li>• Laboratory procedures are in line with industry standards and appropriate for iron ore deposits.</li> <li>• RC Samples are dried at 105°C in gas fired ovens for 18-24 hours or until the mass remains unchanged. Samples greater than 3.5kg are split to 3.5kg and then pulverised to 90% passing 75 micron using a LM5 mill. Core Samples are dried at 105°C in gas fired ovens for 18-24 hours or until the mass remains unchanged. If the mass is &gt;3.5kg they are crushed to a nominal -3mm size by Boyd crusher and a 3.5kg split taken. The split is then pulverised to 90% passing 75 micron using a LM5 mill.</li> <li>• A 200g-300g assay split is collected from the pulverised material (no further drying is conducted after sample is pulverised). 0.7 grams of sample is then weighed out and mixed with 7.7 grams of flux which is then heated to 1050°C in a platinum crucible and then poured into a mould to create the bead which is then read on the XRF. Data is then imported into LIMS to undergo QC.</li> <li>• LOI is measured by thermogravimetric methods (TGA).</li> <li>• Atlas inserts commercially available certified reference material (standards) at a set frequency of 1:20 (5% of total samples) within its sample batches. A number of different standards at a range of grades are used to monitor analytical precision of the assay results.</li> <li>• Blanks are not used by Atlas due to the nature of the analysis being a complete multi-element suite.</li> <li>• Acceptable levels of precision have been achieved with all standard assays reporting within 2 standard deviations of the certified mean grade for the 11 main elements of interest.</li> <li>• The lab also inserts its own standards at set frequencies and monitors the precision of the XRF analysis. These results also reported within the specified 2 standard deviations of the mean grades for all 12 main elements of interest.</li> <li>• The Laboratory performs repeat analyses of sample pulps at a rate of 1:20 (5% of all samples) these compare very closely with the original analysis for all elements.</li> <li>• Analysis of field duplicate and lab pulp duplicates and repeats reveals that greater than 90% of pairs have less than 10% difference and the precision of samples is within acceptable limits and concurs with industry recommended practices.</li> </ul>
<p><b>Verification of sampling and assaying</b></p>	<ul style="list-style-type: none"> <li>• Significant intersections have been independently verified by alternative company personnel. RC chips have been inspected in the field to verify the correlation of mineralised zones with assay results.</li> <li>• Atlas sent a selection of pulps from the Corunna Downs project area to an umpire laboratory (Bureau Veritas, Perth) for verification by an independent laboratory. Comparison of results between laboratories did not reveal any issues and analytical precision was considered acceptable.</li> <li>• No twin RC or diamond drillholes have been completed to assess sample bias.</li> <li>• All primary data is captured electronically on field Toughbook laptops using acQuiretm software. The software has built in validation routines to prevent data entry errors at the point of entry. Data is also validated prior to export from the Toughbook and again on import into the main corporate acQuire database.</li> <li>• All data is sent to Perth and stored in a secure, centralised acQuire SQL database which is</li> </ul>

	<p>administered by database administrator.</p> <ul style="list-style-type: none"> <li>Documentation related to data custody, validation and storage are maintained on the company's server.</li> <li>No adjustments or calibrations were made to any assay data used in the estimate, apart from resetting below detection level values to half positive detection.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>All collars were surveyed by licensed surveyors (MHR and Atlas Surveyors) utilising a RTK GPS system tied into the state survey mark (SSM) network with the expected relative accuracy of 0.05m E, N &amp; RL. Elevation values are in AHD RL.</li> <li>The grid system for the Corunna Downs Project and the Glen Herring resource is MGA_GDA94_Z50.</li> <li>Down hole gyroscopic surveys were undertaken on 65 of 68 RC holes by ABIMS geophysical contractors. Readings are taken at 5m intervals downhole using a SPT north seeking gyroscopic survey tool with a stated accuracy of +/-1o in azimuth and +/-0.1o in inclination. QC of the gyro tool involved field calibration using a test stand and also a calibration hole.</li> <li>LiDAR topographic data and imagery collected by Outline Global Pty Ltd based on 10cm resolution RGB imagery. 2m vertical contour interval resolution derived from stereoscopic imagery DTM. Aerial survey flown on the 16th March 2013. Data supplied in projection MGA_GDA94 Zone 50. The quality and resolution of the topographic data is considered to be adequate for resource estimation purposes</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>RC Drill spacing is on an approximate 40m NW-SE (azimuth 150° - 330°) by 40m NE-SW (azimuth 60° - 240°) grid in the southern zone and 80m NW-SE (azimuth 150° - 330°) by 40m NE-SW (azimuth 60° - 240°) grid in the northern zone. However due to topographic constraints this pattern is not always achievable.</li> <li>This drill spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate to support an Indicated and Inferred Resource classification under the 2012 JORC code and is suitable for this style of deposit.</li> <li>All RC samples are collected at 2m intervals; therefore sample compositing to 2m has statistically negligible effect on the RC samples used in the resource estimate.</li> <li>Geophysical density measurements collected at 10cm increments were composited up to 2m intervals to correspond with the sample length. The compositing process was checked to ensure that no significant changes to the statistical population had been incurred due to the compositing process.</li> </ul>
<b>Sample Security</b>	<ul style="list-style-type: none"> <li>Chain of custody is managed by Atlas. Pre-numbered calico sample bags are packed into sealed and labelled polyweave bags on site and then placed inside sealed and labelled bulka bags. Samples are delivered to a dispatch point in Port Hedland by Atlas Staff and a consignment number issued by the transport company (TOLL). Samples are transported to the relevant laboratory in Perth by courier. Once received at the laboratory, the consignment of samples is receipted against the sample dispatch documents and a reconciliation report is issued to Atlas for every sample batch. Samples are stored in a secure yard at the lab until analysis.</li> <li>Sample security was not considered a significant risk to the project.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>The attitude of the lithological units is dominantly north-easterly dipping from 60°-80° and is drilled to the southwest with drillholes inclined between -60° and -90° degrees to the orientation of the lithological units. Due to locally varying intersection angles between drill holes and lithological units all results are defined as downhole widths.</li> <li>No sample bias due to drilling orientation has been recognized at this time and Atlas considers the overall risk of bias due to data orientation to be very low.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>A detailed audit of the Atlas acQuire drill hole database is performed regularly by independent database management consultants (rOREdata Pty Ltd). The last audit was completed in November 2016 and the database is considered to be of a high standard and acceptable for JORC compliant resource estimation activities. No significant issues were detected during audit.</li> <li>A review of all the resource drillhole data and sampling techniques is carried out internally as part of the resource estimation process.</li> </ul>

<b>REPORTING OF EXPLORATION RESULTS</b>	
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>The Glen Herring resource is located wholly within Exploration Lease M45/1257. The tenement is 100% Atlas owned.</li> <li>The tenement sits within the Njamal Native Title Claim (WC1999/088).</li> <li>At the time of reporting, there are no known impediments to obtaining a licence to operate in the area and the tenement is in good standing.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>No exploration drilling has been completed by other parties in the area of deposit.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>The Corunna Downs Glen Herring BIF-hosted iron ore resource is hosted by the ca. 3.02 Ga Cleaverville Formation (Gorge Creek group, De Grey Supergroup). The prospect is located in the Kelly greenstone belt within the East Pilbara Terrane of Western Australia, approximately 170km southwest of Port Hedland. The N-S trending Kelly greenstone belt is bound by the Corunna Downs and Shaw granitoid complexes.</li> <li>The Glen Herring resource features north-northwest trending successive macrobands of goethite-hematite rich, high grade (&gt;55 wt% Fe) ore zones associated with neighbouring jaspilitic BIF units and banded chert and shale</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>All reported assays have been length weighted; no top cuts have been applied in mineralised domains. A top cut of 49.99% Fe has been applied in waste domains to prevent the estimation of mineralisation in the waste horizons.</li> <li>A nominal 50% Fe lower cut-off is applied with a maximum of 6m width of internal dilution and a 6m minimum intercept width. These criteria have been selected to most appropriately represent the mineralisation, taking into account overall deposit grade and geological continuity.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>Surface Geological mapping (stratigraphy, mineralisation and structure) of the Glen Herring prospect was performed by Atlas geologists</li> <li>Routine multi-element analysis of potential deleterious or contaminating substances such as Arsenic, Lead, Zinc and Sulphur is completed for all samples.</li> <li>Geologists from the Centre for Exploration Targeting (CET), University of Western Australia (UWA) are completing research studies on the Corunna Downs Project with focus on the controls on mineralisation. The nature and timing of mineralisation events was also evaluated through isotopic and geochemical analysis.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>Further RC infill drilling is required at Glen Herring to close out mineralisation especially to the west of the prospect</li> <li>Work related to any potential mining development of the Glen Herring deposit is dependent on outcomes of scoping level mining studies.</li> </ul>
<b>ESTIMATION AND REPORTING OF MINERAL RESOURCES</b>	
<b>Database integrity</b>	<ul style="list-style-type: none"> <li>All data is entered digitally in the field into acquire logging software on a Toughbook computer via templates and lookup tables with enforced data validation rules. The data files are then electronically transferred to the Perth office via email where they are loaded into the centralised SQL acQuire drill hole database and undergo further validation routines before being finally accepted. Validation reports are produced for each drill hole and sent back out to the site geologists for final checking.</li> <li>Assay files sent electronically from the lab in a secure file format and also in hard copy reports. The assay data undergo numerous checks before being accepted into the database on passing all QAQC rules.</li> <li>The Atlas acQuire drill hole database is administered by a Database Administrator. Data validation checks are run routinely by the database administrator and database consultancy 'rOREdata' using acQuire software validation routines.</li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <li>The Competent Person for this report is a full time employee of Atlas Iron and undertakes regular site visits ensuring that industry acceptable standards of the entire process from sampling through the final block model estimate are maintained.</li> </ul>

	<ul style="list-style-type: none"> <li>Several site visits have been carried out by relevant Atlas personnel to inspect the Corunna Downs deposit area, RC logging and sampling practices. No issues of a material nature have been identified on any of these visits.</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <li>There is good confidence in the geological interpretation of the mineral deposit and demonstrated good consistency both on section and between sections.</li> <li>The stratigraphical, structural and mineralisation interpretation has been based on a combination of geophysical, geochemical and lithological data obtained from drill holes and surface mapping information.</li> <li>Wireframes of the stratigraphic and mineralisation surfaces are used to generate an empty geological block model.</li> <li>The overlying hardcap/hydrated zone displays higher variability and lower continuity and as such there is less confidence in the estimation of this zone.</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>The Glen Herring resource has two distinct zones;</li> <li>The southern zone has dimension of approximately 750m (NNW-SSE) along strike and 150m across strike and extends from surface to a maximum depth of ~150m below surface. A 20-30m hydrated layer blankets almost the entire southern resource zone at surface. The deposit contains primary and hydrated mineralisation.</li> <li>The northern part of the deposit consists of hydrated mineralisation that presents as a less continuous zone. The most consistent part of this zone extends ~450m in a NNW-SSE direction and varies across strike from 35m to 200m.</li> </ul>
<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <li>Mineralisation was domained according to stratigraphy and mineralisation style (hydrated or primary). Each geological unit was domained separately using hard boundaries.</li> <li>Drill hole sample data was flagged using domain codes generated from three dimensional stratigraphical and mineralisation surfaces. Each of the two mineralised domains (primary and hydrated) and waste domains were estimated separately.</li> <li>The interpreted mineralisation envelope does not extend more than half the approximate drill hole spacing.</li> <li>Univariate statistical analysis and variogram modelling was completed with Snowden Supervisor software v.8.6 and used to define the spatial continuity of all elements within the mineralised domains.</li> <li>Quantitative kriging neighbourhood analysis (QKNA) was undertaken to optimise estimation parameters, including search parameters, number of samples (minimum and maximum) and block discretisation for primary mineralised geozones.</li> <li>No assumptions have been made regarding the modelling of selective mining units apart from the use of 5m parent cell heights to correspond with current mining bench heights used by Atlas at other projects.</li> <li>No assumptions regarding correlation between variables have been made.</li> <li>A single block model to encompass the Glen Herring Mineral Resource was constructed using a 20mN by 20mE by 5mRL parent block size with sub-celling to 2.5mE by 2.5mN by 2.5mRL for domain resolution. The parent block size is half the drill spacing to ensure the mineralisation is well represented by the blocks and appropriate sample support is maintained.</li> <li>The block model extends from 775050mE to 775930mE and 7631400mN to 7633040mN and elevation from 200mRL to 600mRL.</li> <li>The block model has been assigned unique mineralisation codes that correspond with interpreted geological domains that are defined by wireframes.</li> <li>The domain with small samples number were combined</li> <li>The mineralised domain with small samples number were estimated individually using combined samples from the corresponding domain</li> <li>Estimation of mineralised domains was completed using the ordinary kriging method.</li> <li>Estimation of waste domains was completed using the inverse distance squared (ID<sup>2</sup>) method.</li> <li>The standard Atlas Iron suite of elements (Fe, SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub>, P, MnO, LOI, S, TiO<sub>2</sub>, MgO,</li> </ul>



	<p>CaO, and K<sub>2</sub>O) was estimated for all domains, with un-estimated blocks assigned the mean composite grades used to estimate the domain.</p> <ul style="list-style-type: none"> <li>• Geophysical density was estimated for mineralised domains, with un-estimated blocks assigned the composite mean from the data used to estimate the domain.</li> <li>• Search directions and ranges determined from variogram modelling and QKNA were used to constrain the block interpolation.</li> <li>• Three search estimation runs are used with initial short search runs. The search ellipses typically cover 120m.60m.30m for Major, Semi-Major and Minor axis for run 1; 140m.70m.40m for run 2; and 160m.80m.50m for run 3.</li> <li>• The orientation of the search ellipse for primary mineralisation and waste zones are: bearing 355°, plunge 0° and dip 80°, while for hydrated zone bearing 355°, plunge 0° and dip 0°.</li> <li>• A minimum of 12 samples and a maximum of 36 samples are required for an estimate in run 1. The minimum number of samples reduces to 10 and 8 for run 2 and run 3 respectively. A maximum of 4 samples from any one drill hole is allowed per estimate.</li> <li>• A block discretisation of 5, 5, 2 was applied to align with the parent cell block size.</li> <li>• A high proportion (~69%) of blocks within primary mineralised domains was estimated in run 1, whereas for hydrated zone was 53%</li> <li>• No grade restriction search routines were applied.</li> <li>• All block estimates are based on interpolation into parent block volumes.</li> <li>• Mineral resource estimate does not include any form of dilution, apart from where small intervals of internal waste could not be adequately dominated out.</li> <li>• Maptek Vulcan software 9.1.8 was used to complete the block estimation.</li> <li>• Standard model and estimation validation has been completed using visual and numerical methods and formal peer review by Competent Person.</li> <li>• Slope of regression and kriging variance statistics were used to determine that the estimation results were to the desired level of quality for domains estimated using the OK method.</li> <li>• Block model validation methods used for Ordinary Kriged domains were; visual checks comparing composite grades to block grades; global statistical comparisons for each domain; total assay check; swath plot comparisons produced along Easting, Northings and Elevation; and a change of support analysis.</li> </ul>
<b>Moisture</b>	<ul style="list-style-type: none"> <li>• Tonnages are estimated on a dry basis.</li> <li>• The water table sits approximately 100m below the ground surface with approximately 6.5% of the resource situated below water table.</li> </ul>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>• The criteria used for domaining mineralised material is &gt;50% Fe and &lt;15% SiO<sub>2</sub>, which appears to be a natural grade boundary for this deposit between mineralised and un-mineralised BIF.</li> <li>• Based on the current Atlas shipped product grade specification, a 50% Fe lower cut-off grade is deemed a suitable cut-off to report resources for Glen Herring.</li> </ul>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li>• Mining is assumed to be similar to the process used at other nearby Atlas deposits by open pit using conventional backhoe excavator methods with ore being mined in 5m benches on 2.5m flitches.</li> <li>• No other assumptions on mining methodology have been made at this stage as no detailed mine planning or production scenarios have been reviewed</li> <li>• It is a reasonable assumption that this resource will eventually be economically extracted based on its proximal location to existing Atlas resources, projects and infrastructure and also due to its favourable size and grade characteristics which will fit the Atlas product specification.</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>• The most recent metallurgical test work was done in December 2015 by Nagrom including UCS, CWi, and comminution test. The outcomes of this test have not been factored in the resource estimation.</li> </ul>

<p><b>Environmental factors or assumptions</b></p>	<ul style="list-style-type: none"> <li>• A preliminary study of soil resource assessment and waste characterisation has been undertaken in 2014 at Corunna Down excluding Glen Herring.</li> <li>• A terrestrial fauna baseline study has also been undertaken in 2014 at Corunna Downs.</li> <li>• A further study of soil resource assessment and waste characterisation is being undertaken by MWH along with other prospects within Corunna Down project area.</li> </ul>
<p><b>Bulk density</b></p>	<ul style="list-style-type: none"> <li>• All RC holes are attempted to be down hole surveyed for gamma geophysical density however some holes were blocked, resulting in minor gaps in data coverage across the deposit.</li> <li>• Geophysical density measures the in-situ density inclusive of moisture and porosity. Filtered and cleaned Geophysical density was composited to 2m length and then estimated into the block in a similar fashion to grades.</li> <li>• Dry bulk density has been estimated into the model using geophysical density measurements collected in RC holes which are then regressed to account for the moisture, porosity and hole rugosities present in the measurements using diamond drill hole geophysical density data.</li> <li>• The use of dimensional tray density techniques is generally believed to be unbiased as it accounts for all material types and avoids material handling and selectivity issues commonly encountered by using more traditional Archimedes style density measurements.</li> <li>• Seventy two dimensional density measurements were made from 2 HQ3 diamond holes for the regression calculation.</li> <li>• A density regression of 3.2% reduction to geophysical density to derive the dry bulk density was determined. This regression has been applied globally to the Glen Herring resource.</li> <li>• The resulting dry bulk density of 2.74t/m<sup>3</sup> for the Glen Herring mineralisation compares consistently with Atlas's other Corunna Downs deposits such as Split Rock, Runway, Razorback and Shark Gully and is therefore considered to be a realistic determination of the density.</li> <li>• This is a bulk commodity project.</li> </ul>
<p><b>Classification</b></p>	<ul style="list-style-type: none"> <li>• Mineral resources have been classified by the Competent Person into Indicated and Inferred category based on RC drill hole spacing, geological interpretation confidence, geostatistical parameters, QAQC and overall data quality and confidence, and grade continuity</li> <li>• Mineral resource classification has appropriately taken into account the data spacing, distribution, continuity, reliability, quality and quantity of data.</li> <li>• The input data is sufficient in its coverage for this level of confidence and does not misrepresent in-situ mineralisation.</li> <li>• The results of the validation of the block model show good correlation between the input data and the estimated grades.</li> <li>• The geological model and mineral resource estimation appropriately reflect the Competent Persons view of the deposit and appropriate account has been taken of all relevant factors.</li> <li>• 73% of mineralisation has been classified as Indicated due to high drilling density, good geological continuity, good coverage of geophysical density data and high slope regression</li> <li>• 27% of mineralisation has been classified as Inferred due to limited RC drilling coverage, wider space drilling, lack of local dry bulk density measurements, sparse geophysical density measurements, and low slope regression</li> </ul>
<p><b>Audits or reviews</b></p>	<ul style="list-style-type: none"> <li>• Atlas has undertaken an internal review of the Mineral Resource estimate and is satisfied with its quality and of sufficient confidence to support an Indicated and Inferred classification.</li> <li>• The review consisted of numerous checks made throughout the data collection and estimation process. A final peer review including visual checks of blocks versus drillhole grades, global means comparisons, histogram distribution comparisons, swath plots in Easting, Northing and Elevation and a change of support analysis was completed.</li> <li>• This mineral resource has not been audited externally.</li> <li>• Internal peer reviews are conducted throughout the estimation process and on completion</li> </ul>

	by the Competent Person.
<b>Discussion of relative accuracy/confidence</b>	<ul style="list-style-type: none"> <li>• The confidence in this resource estimate has been deemed appropriate as a basis for long term planning and mine design and is not necessarily sufficient for shorter term planning and scheduling.</li> <li>• A change of support analysis was undertaken on mineralised domains to assess the sensitivity to the grade-tonnage curve in going from sample to block sized support at a range of cut-off grades. This analysis shows that some misclassification of material around the specified cut-off grades can be expected.</li> <li>• The Glen Herring Resource Estimate is sufficient for scoping study purposes commensurate with the classification of the resource.</li> <li>• This statement relates to global estimates of tonnes and grade.</li> <li>• There has been no production from the Glen Herring deposit to provide comparison of relative accuracy and confidence on this estimated mineral resource.</li> </ul>