

ASX Announcement: 17 July 2014

#### **Corunna Downs Exploration Update**

Significant new intercepts further expand potential of project area

Atlas Iron Ltd (ASX: AGO) is pleased to announce excellent drilling results from the recently discovered 'Glen Herring' prospect, further demonstrating the unfolding potential of its 100%-owned Corunna Downs Project, in the North Pilbara.

Atlas' Managing Director Ken Brinsden said further exploration drilling north of previously reported results show that Corunna Downs has the potential to grow beyond the current exploration target (released to the ASX on 9 December 2013 and later referred to in the ASX Announcements of 31 January 2014 and 9 May 2014).

The new results include thick intersections of low phosphorus, low alumina DSO at the northern end of the emerging Corunna Downs corridor, outside of the current resource and exploration target area.

Work is underway to progress this data through the resource estimation process, which is expected to be completed by the end of 2015. Further drilling and associated exploration activities will be undertaken during FY2015 to further test the exploration target.

The cross-sections in Figure 5 highlight the continuity of mineralisation at Glen Herring, which is very similar in style and orientation to that encountered at the other Corunna Downs Resources and Prospects further south (see ASX Announcements of 9 December 2013, 31 January 2014 and 9 May 2014).

"Corunna Downs is Atlas' best greenfields exploration discovery both in terms of the potential scale of the resource and its blending capacity. This area is rapidly taking shape as a key growth option for Atlas and we are looking forward to showing what the entire project area can deliver," Mr Brinsden added.

#### Highlights

Recent RC drilling of new 'Glen Herring' prospect at Corunna Downs (formerly CD01 prospect) has returned outstanding new thick intercepts, including:

- 142m @ 58.45% Fe, 5.81% SiO<sub>2</sub>, 1.00% Al<sub>2</sub>O<sub>3</sub> and 0.074% P in CDRC0366; and
- 138m @ 59.32% Fe, 5.01% SiO<sub>2</sub>, 1.12% Al<sub>2</sub>O<sub>3</sub> and 0.054% P in CDRC0371 (including 112m @ 61.05% Fe 2.98% SiO<sub>2</sub>, 0.74% Al<sub>2</sub>O<sub>3</sub> and 0.058% P); and
- 116m @ 58.55% Fe, 6.14% SiO<sub>2</sub>, 0.88% Al<sub>2</sub>O<sub>3</sub> and 0.066% P in CDRC0364, and
- 96m @ 59.71% Fe, 4.52% SiO<sub>2</sub>, 0.95% Al<sub>2</sub>O<sub>3</sub> and 0.046% P in CDRC0365.

Results confirm the presence of significant mineralisation beyond the previously explored area

Low phosphorous, low alumina exploration results

Corunna Downs presents an opportunity to contribute to Atlas' existing Horizon 1 operating model and add value to future infrastructure solutions

Investor Enquiries Atlas Iron +61 8 6228 8000 Ken Brinsden, Managing Director

Media Enquiries Read Corporate +61 8 9388 1474 Paul Armstrong +61 421 619 084

Atlas Iron Limited ABN 63 110 396 168

Raine Square, Level 18 300 Murray Street Perth WA 6000 PO Box 7071 Cloisters Square Perth WA 6850 **P:** +61 8 6228 8000 **F:** +61 8 6228 8999

E: atlas@atlasiron.com.au W: www.atlasiron.com.au

#### **ATTACHMENT 1 – FIGURES**

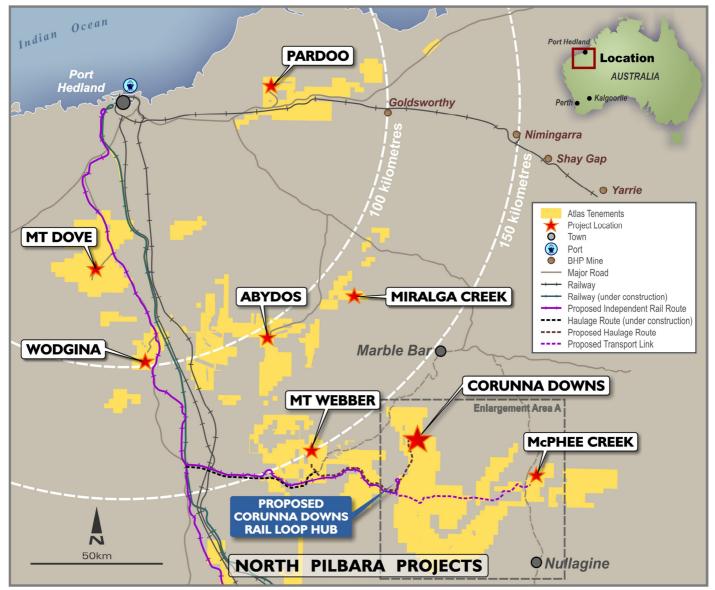


Figure 1 – North Pilbara Projects, Atlas Tenure, Existing and Proposed Infrastructure.



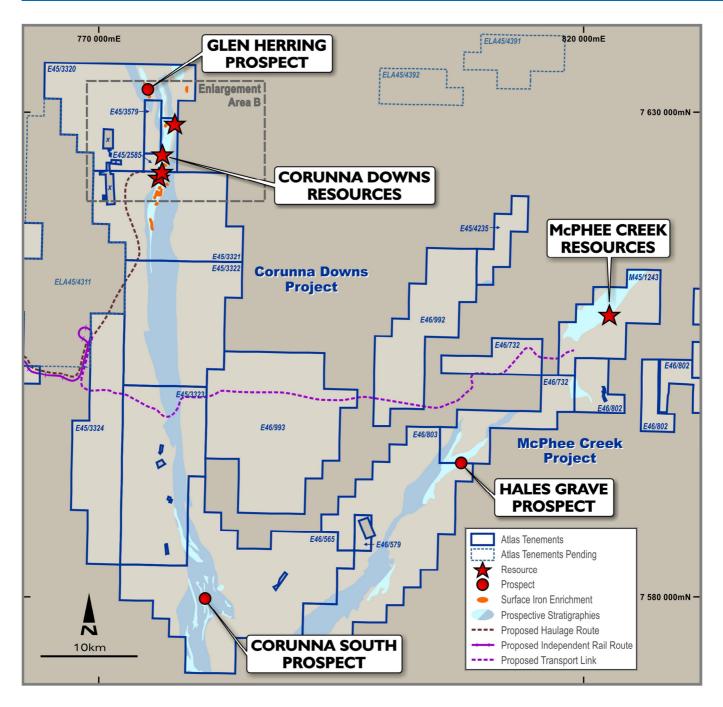


Figure 2 – Enlargement Area A – Corunna Downs and McPhee Creek Projects Showing Atlas' Tenure, prospective stratigraphy and the location of the Glen Herring Prospect (formerly CD01).



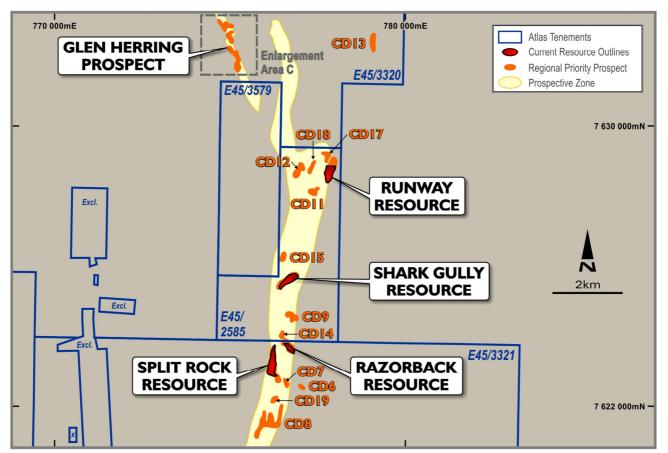


Figure 3 – Enlargement Area B – Corunna Downs Prospect and resource locations showing the location of the Glen Herring Prospect.



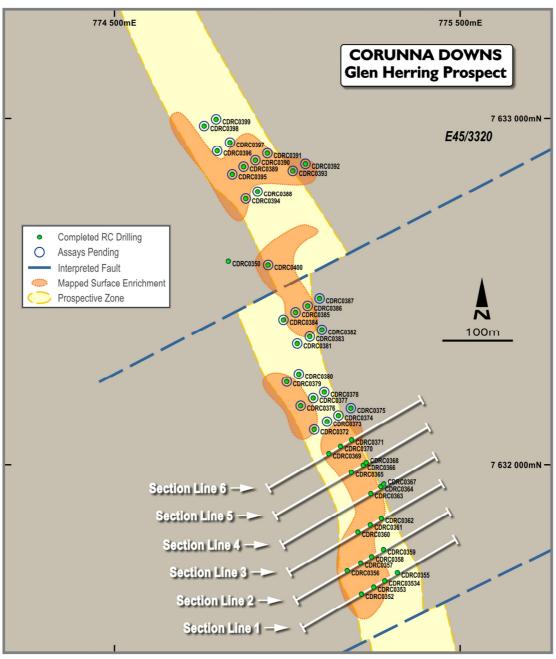
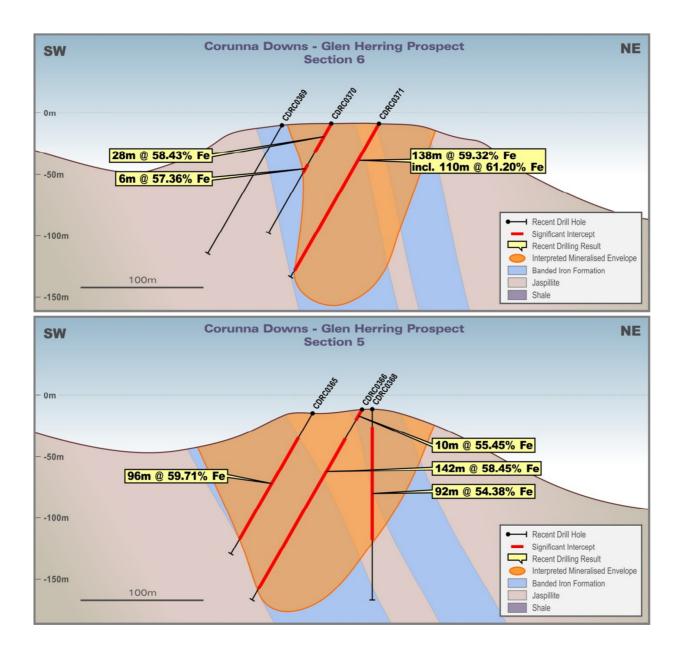
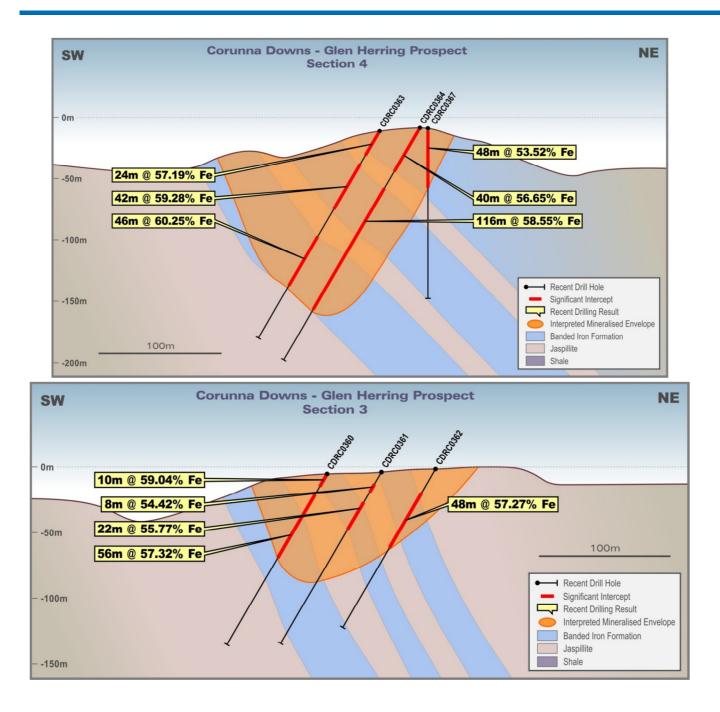


Figure 4 – Enlargement Area C – Glen Herring Prospect showing collar locations of recent RC drilling, and location of sections shown in Figure 5.











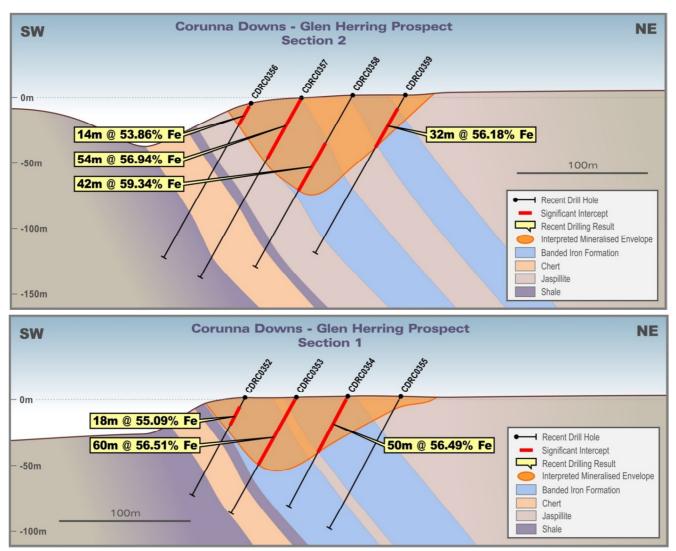


Figure 5 – Cross sections from Glen Herring showing significant intercepts and stratigraphy. Refer to Figure 4 for the locations of sections 1-6.



#### **ATTACHMENT 2 – SIGNIFICANT INTERCEPTS**

	EAST	NORTH													
HOLE ID	GDA_94_Z50	GDA_94_Z50	RL (m)	DEPTH	AZIMUTH	DIP	FROM (m)	TO (m)	LENGTH (m)	Fe%	SiO2%	AI2O3%	P%	LOI1000%	<b>S%</b>
CDRC0352	775216	7631626	420	144	240	-60	8	26	18	55.09	7.42	3.37	0.030	9.85	0.028
CDRC0353	775251	7631646	421	102	240	-60	0	60	60	56.51	7.31	1.29	0.016	10.17	0.011
CDRC0354	775285	7631666	422	96	240	-60	0	50	50	56.49	7.83	1.00	0.024	10.21	0.015
CDRC0356	775176	7631695	411	132	240	-60	2	16	14	53.86	10.11	3.49	0.033	9.12	0.021
CDRC0357	775211	7631715	417	156	240	-60	0	54	54	56.94	6.45	2.04	0.029	9.50	0.019
CDRC0358	775245	7631735	420	150	240	-60	42	84	42	59.34	5.05	0.87	0.049	7.82	0.006
CDRC0359	775280	7631755	420	138	240	-60	12	44	32	56.18	7.86	0.76	0.034	10.49	0.013
CDRC0360	775205	7631804	413	150	240	-60	0	10	10	59.04	5.66	2.43	0.023	7.21	0.020
CDRC0360	775205	7631804	413	150	240	-60	18	74	56	57.32	9.75	1.33	0.028	6.35	0.010
CDRC0361	775240	7631824	414	150	240	-60	12	20	8	54.42	12.92	1.08	0.034	7.85	0.016
CDRC0361	775240	7631824	414	150	240	-60	28	50	22	55.77	5.89	2.29	0.048	9.82	0.012
CDRC0362	775275	7631844	416	138	240	-60	22	70	48	57.27	5.97	1.21	0.043	10.37	0.012
CDRC0363	775242	7631916	406	192	240	-60	0	24	24	57.19	6.43	1.48	0.040	9.93	0.016
CDRC0363	775242	7631916	406	192	240	-60	32	74	42	59.28	4.61	1.04	0.057	8.63	0.006
CDRC0363	775242	7631916	406	192	240	-60	100	146	46	60.25	5.18	0.96	0.049	7.23	0.007
CDRC0364	775269	7631934	409	216	240	-60	0	40	40	56.65	5.08	2.04	0.039	10.37	0.021
CDRC0364	775269	7631934	409	216	240	-60	56	172	116	58.55	6.14	0.88	0.066	8.89	0.006
CDRC0365	775186	7631978	405	134	240	-60	24	120	96	59.71	4.52	0.95	0.046	8.75	0.009
CDRC0366	775221	7631998	407	180	240	-60	0	10	10	55.45	6.18	3.70	0.028	10.50	0.018
CDRC0366	775221	7631998	407	180	240	-60	28	170	142	58.45	5.81	1.00	0.074	8.88	0.011
CDRC0367	775275	7631936	409	138	0	-90	0	48	48	53.52	9.79	2.28	0.032	10.06	0.017
CDRC0368	775228	7632002	407	156	0	-90	14	106	92	54.38	11.17	1.12	0.057	9.24	0.009
CDRC0370	775155	7632052	409	102	240	-60	0	28	28	58.43	4.06	1.66	0.026	10.35	0.015
CDRC0370	775155	7632052	409	102	240	-60	38	44	6	57.36	9.62	1.60	0.053	6.28	0.005
CDRC0371	775189	7632072	409	144	240	-60	0	138	138	59.32	5.01	1.12	0.054	8.49	0.012

Table 1: Significant Intercept Results at Corunna Downs Glen Herring Prospect.

<u>Notes to Table 1</u>: Assay results are based on 2 meter samples from cone split RC samples, analysis by XRF with total LOI by Thermo-Gravimetric Analysis. 10% of samples are subject to QAQC procedures (standards and duplicates). Laboratory check samples are routinely performed on each sample submission. Significant Intercepts are reported at a 53% Fe cut-off grade, and include a maximum of 6m internal dilution and 6m minimum width for intersection. Drill holes are spaced on a nominal 80m X 40m grid pattern, with collar locations surveyed by handheld GPS with expected error of +/- 3m.

**Competent Person's Statement – Exploration Results** The information in this report that relates to the Exploration Results at Corunna Downs is based on information compiled by Pip Darvall, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Pip Darvall is a full time employee and shareholder of Atlas Iron Ltd and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being 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'. Pip Darvall consents to the inclusion in this report of the matters based on his information in the form and context in which it appears. The Exploration Results has been verified by Steven Warner, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy. Steven Warner is a full time employee and shareholder of Atlas Iron Ltd and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person & Steven Warner is a full time employee and shareholder of Atlas Iron Ltd and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being 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'. Steven Warner consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

#### **Forward Looking Statements**

A number of statements in this ASX Announcement relate to the future and are forward looking statements. The words "expect", "estimate", "guidance", "forecast", "should", "projected", "expected", "potential", "could", "may", "predict", "plan" and other similar expressions are intended to identify forward looking statements. These statements reflect views only as of the date of this ASX Announcement. These forward looking statements, opinions and estimates are based on assumptions and contingencies that are subject to change without notice, as are statements about market and industry trends, which are based on interpretations of current market conditions. Forward looking statements are provided as a general guide only and should not be relied on as a guarantee of future performance. Forward looking statements may be affected by a range of variables that could cause actual results or trends to differ materially. These variations, if adverse, may affect the timing, feasibility or the cost of developing the Company's projects, the estimated cash flows and returns from those projects. Neither the Company, nor any other person makes or gives any representation, assurance or guarantee, that the occurrence of an event expressed or implied in any forward looking statement, will actually occur.



#### **ATTACHMENT 3**

JORC 2012 TABLE 1 – CHECKLIST OF ASSESSMENT AND REPORTING CRITERIA					
CORUNNA DOWNS GLEN HERRING PROSPECT – JULY 2014					
CRITERIA	EXPLANATION				
	SECTION 1 - SAMPLING TECHNIQUES AND DATA				
Sampling techniques	<ul> <li>Reverse Circulation (RC) drilling was used to obtain 2.0m downhole interval chip samples.</li> <li>The samples were collected through a cone splitter to obtain a nominal 4.0-6.0kg sample at an approximate 10% split ratio.</li> <li>One 4-6kg (average) sample taken for each two metre sample length and collected in prenumbered calico sample bags.</li> <li>Sample was dried, crushed and pulverised (total prep) to produce a sub sample for analysis for XRF and total LOI by TGA.</li> <li>Quality of sampling continuously monitored by field geologist during drilling.</li> <li>To monitor the representivity of the sample, 5 duplicates are taken for every 100 samples (1:20).</li> <li>Sampling carried out under Atlas protocols and QAQC procedures as per industry best practice.</li> </ul>				
Drilling techniques	<ul> <li>Reverse Circulation (RC) drilling employing a 140mm diameter face sampling hammer.</li> <li>A nominal drill spacing of 80mN by 40mE has been completed.</li> </ul>				
Drill sample recovery	<ul> <li>RC sample recovery is recorded by the geologist and is based on how much of the sample is returned from the cone splitter. This is recorded as good, fair, poor or no sample.</li> <li>To ensure maximum sample recovery and the representivity of the samples, an experienced Atlas geologist is present during drilling and monitors the sampling process. Any issues are immediately rectified.</li> <li>No significant sample recovery issues were encountered.</li> <li>No twin RC or diamond drillholes have been completed to assess sample bias due to preferential loss/gain of fine/coarse material or due to wet drilling.</li> <li>Atlas is a 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>No relationship between sample recovery and grade has been demonstrated.</li> </ul>				
Logging	<ul> <li>Logging of every 2m interval (Atlas procedure) corresponding with 2m sampled interval. This level of detail supports appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>RC logging is both qualitative and quantitative in nature.</li> <li>RC logging records the abundance/proportions of specific minerals and material types, lithologies, weathering, colour and physical hardness is determined by chip percent measurement.</li> <li>The entire length of RC holes were logged on 2m intervals to correspond to the sampling interval, 100% of the drilling was logged. Where no sample was returned due to cavities/voids it is recorded as such.</li> <li>Geophysical data collected from available RC holes (natural gamma, gamma density, magnetic susceptibility &amp; resistivity). Not all holes were open at depth which precluded 100% recovery of measurements from all of the drillholes.</li> </ul>				
Sub-sample techniques and sample preparation	<ul> <li>Sampling technique:         <ul> <li>RC Chip Samples:</li> <li>~6kg RC chip samples are collected via cone splitter for each 2m interval drilled in a pre- numbered calico bag. Samples are kept dry where possible.</li> <li>The sample sizes are considered to be appropriate to correctly represent the mineralisation based on the style of mineralisation (massive goethite/hematite), the thickness and consistency of intersections, the sampling methodology and percent value assay ranges for the primary elements.</li> </ul> </li> </ul>				



	Sample preparation:
	<ul> <li>Sample dried at 105 ℃ for 18-24 hrs.</li> </ul>
	Crushed to nominal -3mm by Boyd crusher.
	<ul> <li>Pulverised to 90% passing at 75µm using a LM2 mill.</li> </ul>
	<ul> <li>Sub-sample pulp to produce a 66 gram sample for analysis.</li> </ul>
	Quality Control Procedures
	<ul> <li>Duplicated sample: 5 every 100 samples (1:20).</li> </ul>
	• Certified Reference Material assay standards inserted: 5 in every 100 samples (1:20).
	Overall QAQC insertion rate of 1:10.
	Sample weights recorded for all samples.
	<ul> <li>Lab duplicates taken where large samples required splitting down by the lab.</li> </ul>
	<ul> <li>Lab repeats taken and standards inserted at predetermined level specified by the lab.</li> </ul>
Quality of assay data and	All samples submitted to SGS Laboratory in Perth and assayed for the full iron ore suite by XRF
laboratory tests	(24 elements) and for total LOI by thermogravimetric technique. The method used is designed
	to measure the total amount of each element in the sample.
	Laboratory procedures are in line with industry standards and appropriate for iron ore deposits.
	<ul> <li>Samples are dried at 105<sup>o</sup>C in gas fired ovens for 18-24 hours before being crushed to a</li> </ul>
	nominal -3mm size by Boyd crusher, then pulverised to 90% passing 75 micron using a LM2
	mill. Sub-samples are collected to produce a 0.66g sample that is dried further, fused at 110°C
	for 10 minutes poured into a platinum mould and placed in the XRF machine for analysing and
	reporting.
	<ul> <li>A total LOI is measured by Thermogravimetric methods (TGA).</li> </ul>
	Certified Reference Material assay standards, field duplicates and umpire laboratory analysis
	are used for quality control.
	• There were no discernable issues with sample representivity and all duplicate samples were
	within 10% of the original sample value.
	Acceptable levels of precision have been achieved with all standard assays reporting within 2
	standard deviations of the certified mean grade for the 12 main elements of interest.
	• Umpire laboratory campaigns with another commercial laboratory in Perth (Ultratrace) have
	been carried out as independent checks of the assay results and these show good precision.
	Certified Reference Material assay standards having a good range of values were inserted at
	predefined intervals by Atlas and randomly by the lab at set levels. Results highlight that sample
	assay values are accurate and precise.
	<ul> <li>Analysis of field duplicate and lab pulp repeat samples reveals that greater than 90% of pairs</li> </ul>
	have less than 10% difference and the precision of samples is within acceptable limits, which
	concurs with industry best practice. The lab also inserts its own standards at set frequencies and monitors the precision of the XRF analysis. These results also reported well within the specified
	2 standard deviations of the mean grades for all 12 main elements of interest.
	<ul> <li>XRF calibrations are checked once per shift using calibration beads made using exact weights.</li> </ul>
	<ul> <li>The Laboratory performs repeat analyses of sample pulps at a rate of 1:20 (5% of all samples)</li> </ul>
	these compare very closely with the original analysis for all elements.
Verification of sampling and	<ul> <li>Significant intersections have been independently verified by alternative company personnel.</li> </ul>
assaying	<ul> <li>The Competent Persons has visited site and inspected the sampling process in the field and</li> </ul>
	also inspected the Laboratory.
	<ul> <li>All primary data are captured on field Toughbook laptops using acQuire<sup>tm</sup> software. The</li> </ul>
	software has validation routines to prevent data entry errors.
	<ul> <li>All data is sent to Perth and stored in the secure, centralised acQuire SQL database which is</li> </ul>
	managed by a full time database administrator.
	• Documentation related to data custody, validation and storage are maintained on the company's
	server.
	<ul> <li>No adjustments or calibrations were made to any assay data, apart from resetting below detection values to helf positive detection</li> </ul>
Location of data points	<ul> <li>detection values to half positive detection.</li> <li>All Collars were surveyed by Atlas personnel using hand held GPS. Elevation values are in</li> </ul>
	All Collars were surveyed by Allas personnel using hand held GFS. Elevation values are in AHD RL. Expected accuracy is +/- 5m for easting, northing and elevation coordinates.
	<ul> <li>The grid system for Corunna Downs and the Glen Herring prospect is MGA_GDA94 Zone 50.</li> </ul>
	<ul> <li>Topographic data collected by Outline Global Pty Ltd based on. 2m vertical contour interval</li> </ul>
	resolution derived from 5m DTM. Aerial survey flown on the 16 <sup>th</sup> March 2013. Data supplied in
	projection MGA_GDA94 Zone 50.



	<ul> <li>Downhole gyroscopic surveys are attempted on all RC and diamond 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 +/-1° in azimuth and +/-0.1° in inclination. QC of the gyro tool involved field calibration using a test stand and also a calibration hole.</li> </ul>
Data spacing and distribution	<ul> <li>Drill spacing on an approximate 80m by 40m grid, however due to topographical constraints this is sometimes not achievable.</li> </ul>
	<ul> <li>This drill spacing is sufficient to establish the degree of geological and grade continuity applied under the 2012 JORC code and is suitable for this style of deposit.</li> <li>Sample compositing has not been applied to the RC samples used in the resource estimate; all RC samples are collected at 2m intervals.</li> </ul>
Orientation of data in relation	
to geological structure	<ul> <li>The attitude of the lithological units is dominantly north-easterly dipping from 70-80 degrees 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 drilling orientation and sampling bias has been recognized at this time and is not considered</li> </ul>
	to have introduced a sampling bias.
Sample security	<ul> <li>Samples are packed into polyweave bags and then placed inside sealed Bulka bags. Samples are delivered to a 3<sup>rd</sup> party despatch point in Port Hedland by Atlas staff.</li> <li>Chain of custody is managed by Atlas.</li> <li>Samples are transported to the relevant Perth laboratory by courier (TOLL &amp; Centurion).</li> <li>Once received at the laboratory, samples are stored in a secure yard until analysis.</li> <li>The lab receipts received samples against the sample dispatch documents and issues a reconciliation report for every sample batch.</li> <li>Sample security was not considered a significant risk to the project.</li> </ul>
Audits or reviews	<ul> <li>An audit of the Atlas acQuire drillhole database was completed in January 2014 by independent</li> </ul>
	<ul> <li>An addit of the Attas accure diminife database was completed in sandary 2014 by independent database management company (Roredata Pty Ltd).</li> <li>The Atlas acQuire database is considered to be of sufficient quality.</li> <li>A regular review of the data and sampling techniques is carried out internally.</li> <li>Snowdens Mining Industry Consultants (John Graindorge, Principal Consultant) completed a thorough review/audit of Atlas drilling, sampling, logging, assaying and data transfer procedures in March/April 2014. This audit included a 2 day visit to Corunna Downs to inspect field practices and procedures. No significant issues were encountered or noted during the audit.</li> </ul>
SECTION 2 - REPORTING OF I	
Mineral tenement and land	• Exploration Prospects are located wholly within Exploration Lease E45/2585. The tenement is
tenure status	100% owned by Atlas.
	The tenements lie within the Njamal Native Title Claim (WC1999/088).
	• 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.
Exploration done by other parties	Rock chip sampling at Corunna Downs was initially conducted by Gondwana Resource Pty Ltd.
Geology	<ul> <li>The Corunna Downs BIF-hosted iron ore mineralisation 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. The Glen Herring prospect features 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>
Drill hole information	Refer to Figure 4, Figure 5 and Table 1 above.
Data aggregation methods	• A nominal 53% lower Fe cut is applied with 6m internal dilution and 6m minimum width for significant intercepts. These criteria have been selected to most appropriately represent the mineralisation, taking into account overall deposit grade and geological continuity.
Relationship between	• The attitude of the lithological units is dominantly north-easterly dipping from 70-80 degrees and



intercept lengths	lithological units all results are defined as downhole widths.
Diagrams	<ul> <li>Collar plan and sections through the deposit with stratigraphic and mineralisation interpretations can be seen in Figure 4 and Figure 5.</li> </ul>
Balanced reporting	All results are reported.
Other substantive exploration data	<ul> <li>Surface Geological (stratigraphic and structural) mapping of the Glen Herring prospect completed by Atlas geologists.</li> <li>Geologists from the Centre for Exploration Targeting (CET), University of Western Australia (UWA) commenced mapping over remainder of the Corunna Downs project area to evaluate main controls on mineralisation. The nature and timing of mineralisation events is also being evaluated through isotopic and geochemical analysis.</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> </ul>
Further work	<ul> <li>Accurate drillhole collar surveying by DGPS_RTK is expected to be completed shortly.</li> <li>Geological mapping, rock chip sampling and follow up exploration RC drilling over a number of other prospects along the trend is ongoing.</li> <li>Infill drilling will be undertaken on the basis of successful results being received.</li> </ul>

