



29 January 2018

Pilbara exploration returns encouraging copper and lithium results

Highlights

- **First pass field reconnaissance at Pancho Lithium Project confirms presence of LCT pegmatites with the potential for lithium enrichment**
- **Drilling at Copper Range supports potential for a large-scale, low-grade copper deposit, with mineralisation at Copper Knob still open along strike and down dip**
- **Drilling of an undercover geophysical target near Miralga Creek intersects semi-massive sulphides with anomalous copper**

Atlas Iron Limited (ASX: AGO) is pleased to provide an update on recent Pilbara exploration activities.

In line with its diversification strategy, Atlas continues to progress its 100% owned Pancho Lithium and Copper Range Projects. In addition, a first pass drilling program over an undercover geophysical target near Miralga Creek has intersected disseminated and semi-massive sulphides that may indicate the presence of VHMS-style copper mineralisation.

Pancho Lithium Project

In late 2017, Atlas completed a detailed on ground geological reconnaissance program across the Pancho project area to investigate several potential lithium-caesium-tantalum (LCT) pegmatites.

Sixteen desktop targets were investigated (PAN01 to PAN16) and two additional targets were identified in the field (PAN17 & PAN18). Analytical results from surface rock chip sampling show several of the targets have geochemistry that confirms they are LCT style pegmatites that have the potential to host lithium enrichment. Compilation of these results along with other information gathered in the field has enabled Atlas to define a specific zone of focus for the next stage of exploration work.

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Atlas now plans to conduct a Mobile Metal Ion soil sampling program across the identified hot zone. Coupled with additional detailed mineralogical studies, this process will enable Atlas to further refine targeting for lithium enrichment below surface.

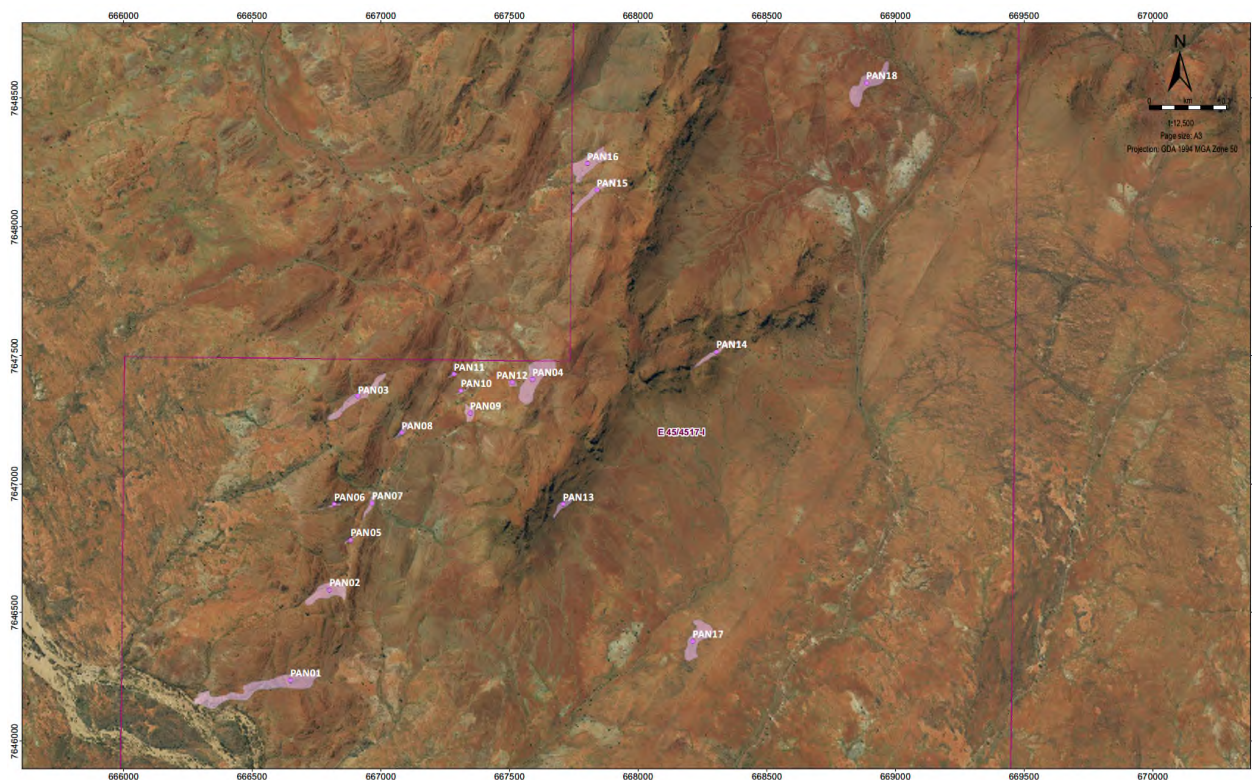


Figure 1: Pancho Pegmatite Targets

Copper Range Project

In October 2017, Atlas completed a six hole RC drilling program at Copper Range (50km east of Newman), with four drill holes drilled at Copper Knob to test the down-dip continuity and western strike extent of the previously identified copper mineralisation, and two holes drilled at Copper Knob East to confirm historical work and test continuity along strike to the east.

A total of six holes for 1,363m drilled were completed with every hole encountering anomalous copper mineralisation. Significant intersections include:

- **16m @ 0.26% Cu** from 46m (including **8m @ 0.48% Cu**) in CRRC0001
- **5m @ 0.27% Cu** from 32m (including **2m @ 0.48% Cu**) in CRRC0002
- **6m @ 0.27% Cu** from 76m (including **2m @ 0.54% Cu**) in CRRC0003
- **14m @ 0.31% Cu** from 181m (including **9m @ 0.39% Cu**) in CRRC0003
- **2m @ 0.53% Cu** from 120m in CRRC0004
- **41m @ 0.28% Cu** from 126m (including **9m @ 0.42% Cu**) in CRRC0004
- **14m @ 0.30% Cu** from 117m (including **5m @ 0.52% Cu**) in CRRC0005
- **9m @ 0.24% Cu** from 156m (including **2m @ 0.39% Cu**) in CRRC0006

These results extend the historically identified Cu enrichment to both the west and east, and confirm continuity between near surface mineralisation and previously drilled deeper zones at Copper Knob. In addition, the strike extent remains open in both directions and mineralisation is not closed down dip. With up to 9km of historically anomalous copper and gold results

along the length of the Copper Range Project, Atlas believes there to be excellent potential for a large scale, low grade copper deposit to be defined, with opportunity to discover smaller higher grade massive sulphide lenses.

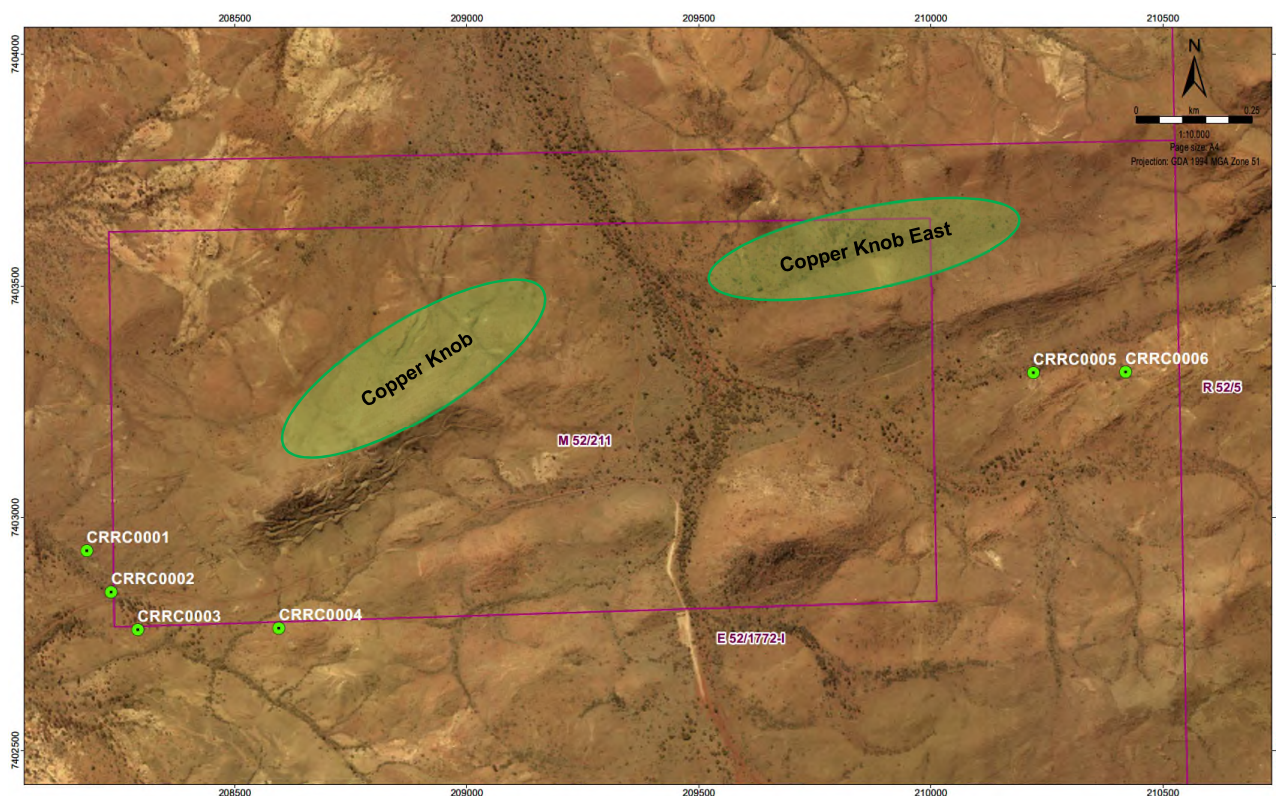


Figure 2: 2017 Copper Range RC Drilling

Walker Copper Project

In December 2017, Atlas conducted a small RC drill program to test the northern extent of an undercover geophysical target, located near the Company's Miralga Creek Iron Ore Resource¹ and adjacent to existing Abydos infrastructure. With limited outcrop in the immediate area, the drill program was designed to test the potential for the NE-SW trending anomaly to be a buried volcanic sequence that may host a VHMS-style polymetallic deposit.

A total of nine holes for 1,062m were completed with several holes intersecting visible sulphides. The sulphide occurrences range from disseminated to semi-massive in nature. Assays for drillhole MRRC0047 have returned the following significant intercepts across two distinct zones of mineralisation:

- **12m @ 0.46% Cu** from 50m (including **4m @ 1.00% Cu** and **10.8g/t Ag** from 58m)
- **14m @ 0.48% Cu** from 94m (including **4m @ 1.08% Cu** and **5.6g/t Ag** from 94m)

In addition, this hole encountered several other zones of enrichment above 0.15% Cu and drillholes MRRC0053 and MRRC0054 also returned intersections above 0.15% Cu (Table 4).

Atlas is very encouraged by these results. With the southern extent of the geophysical anomaly yet to be tested and two very similar undercover geophysical targets identified to the south west, the Company is planning further work on this area.

¹ Mineral Resources as at 30 June 2017, refer to ASX announcement dated 29 August 2017.



Figure 3: RC Drilling at the Walker Copper Project

Emu Creek Copper and Gold Project

In December 2016, Atlas agreed to farm out an interest in its Emu Creek Copper and Gold Project near Nullagine to Great Sandy Pty Ltd. Great Sandy has carried out a limited mapping and rock sampling program, with further work planned. Great Sandy's rights under the farm-in agreement are expected to be sold to Public Holdings (Australia) Limited, which will be known as First Au after regulatory approvals are complete (see Public Holdings (Australia) Limited's release dated 10 January 2018 for further details).

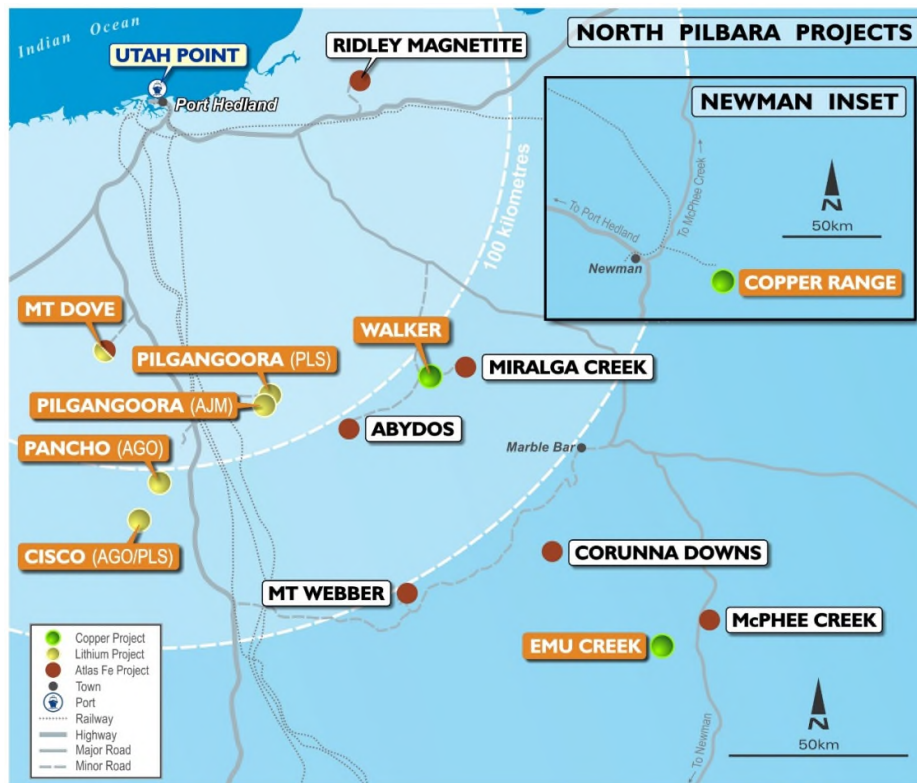


Figure 4: Atlas North Pilbara projects

Conglomerate-hosted Gold

In October 2017, Atlas completed an internal review to determine the prospectivity of its tenements for conglomerate-hosted gold mineralisation. The review was conducted in light of recent gold exploration success in the Pilbara, where several companies found conglomerate-hosted gold mineralisation which lies adjacent to Mt Roe Basalt. Atlas generated exploration targets within the Corunna Downs, Miralga Creek and McPhee Creek areas adjacent to existing Atlas infrastructure.

In conjunction with the review, Atlas entered into discussions with several exploration companies active in the Pilbara to advance exploration for conglomerate-hosted gold. With changes in market sentiment for conglomerate-hosted gold late in 2017, these discussions have slowed.

The exploration targets generated during the review will be incorporated into a broader review of gold prospectivity on all Atlas tenements.

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The information in this report that relates to Geology and Exploration Results is based on, and fairly represents, information and supporting documentation compiled by 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 Iron Limited and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as 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 the report of the matters based on his information in the form and context in which it appears.

Table 1: RC Drill Hole Collar Details for 2017 Copper Range Program

HOLEID	PROSPECT	EASTING	NORTHING	RL	DEPTH (m)	DIP	AZIMUTH (Magnetic)
CRRC0001	COPPER KNOB	208181	7402929	555	154	-60°	319°
CRRC0002	COPPER KNOB	208234	7402840	555	190	-60°	319°
CRRC0003	COPPER KNOB	208291	7402760	555	215	-60°	319°
CRRC0004	COPPER KNOB	208595	7402763	560	304	-60°	319°
CRRC0005	COPPER KNOB EAST	210221	7403314	559	196	-60°	354°
CRRC0006	COPPER KNOB EAST	210420	7403315	559	304	-60°	354°

Table 2: Significant Intercepts for Copper Range using a 0.15%Cu cutoff and up to 2m internal dilution

HOLEID	INTERCEPT FROM	INTERCEPT TO	LENGTH	Cu (%)	Ag (ppm)	Au (ppm)	Zn (ppm)
CRRC0001	24	31	7m	0.19	1.09	0.06	207.00
CRRC0001	37	42	5m	0.20	0.83	0.04	119.40
CRRC0001	46	62	16m	0.26	1.11	0.05	112.81
CRRC0001	101	108	7m	0.20	0.86	0.05	119.43
CRRC0002	16	19	3m	0.26	1.25	0.03	306.67
CRRC0002	22	25	3m	0.19	1.29	0.03	351.67
CRRC0002	32	37	5m	0.27	1.84	0.08	260.40
CRRC0002	60	65	5m	0.17	1.06	0.03	108.80
CRRC0002	104	108	4m	0.18	0.90	0.05	116.25
CRRC0002	115	121	6m	0.26	1.59	0.08	92.67
CRRC0002	124	126	2m	0.22	1.94	0.08	108.00
CRRC0002	130	134	4m	0.24	2.51	0.14	125.50
CRRC0003	76	82	6m	0.27	1.94	0.04	264.50
CRRC0003	86	89	3m	0.18	1.54	0.07	267.67
CRRC0003	109	113	4m	0.17	1.21	0.06	308.75
CRRC0003	116	124	8m	0.16	1.08	0.04	345.63
CRRC0003	127	146	19m	0.18	0.84	0.05	180.05
CRRC0003	181	195	14m	0.31	1.77	0.05	169.21
CRRC0004	107	110	3m	0.22	1.52	0.04	218.67
CRRC0004	120	122	2m	0.53	2.88	0.09	281.50
CRRC0004	126	167	41m	0.28	1.33	0.07	724.68
CRRC0004	173	181	8m	0.16	1.30	0.07	187.29
CRRC0004	186	204	18m	0.17	1.38	0.04	253.83
CRRC0004	207	220	13m	0.19	1.31	0.04	163.62
CRRC0004	228	232	4m	0.20	1.18	0.06	267.75
CRRC0004	252	290	38m	0.18	0.69	0.04	171.34
CRRC0005	33	35	2m	0.19	1.03	0.01	197.50
CRRC0005	117	131	14m	0.30	3.29	0.14	290.43
CRRC0005	153	156	3m	0.26	1.93	0.07	1539.00
CRRC0005	161	164	3m	0.22	1.53	0.09	204.00
CRRC0005	170	184	14m	0.20	1.09	0.06	148.43
CRRC0006	109	111	2m	0.22	3.72	0.03	264.00

HOLEID	INTERCEPT FROM	INTERCEPT TO	LENGTH	Cu (%)	Ag (ppm)	Au (ppm)	Zn (ppm)
CRRC0006	120	122	2m	0.19	2.50	0.04	271.50
CRRC0006	156	165	9m	0.24	2.86	0.13	370.67
CRRC0006	171	173	2m	0.16	2.97	0.09	217.50
CRRC0006	200	211	11m	0.20	1.13	0.07	177.55
CRRC0006	222	231	9m	0.22	1.36	0.07	158.33
CRRC0006	239	242	3m	0.15	1.33	0.03	129.33

Table 3: RC Drill Hole Collar Details for 2017 Walker Copper Project Program

HOLEID	PROSPECT	EASTING	NORTHING	DEPTH (m)	DIP	AZIMUTH
MRRC0046	TERMINUS	742723	7676867	118	-90°	
MRRC0047	TERMINUS	742723	7676867	124	-90°	
MRRC0048	TERMINUS	742782	7676814	70	-90°	
MRRC0049	TERMINUS	742738	7676747	124	-58°	317°
MRRC0050	TERMINUS	742741	7676747	118	-59°	138°
MRRC0051	TERMINUS	742685	7676687	118	-60°	315°
MRRC0052	TERMINUS	742685	7676687	112	-58°	139°
MRRC0053	TERMINUS	742681	7676797	154	-90°	
MRRC0054	TERMINUS	742616	7676747	118	-90°	

Table 4: Significant Intercepts for Walker using a 0.15%Cu cutoff and up to 2m internal dilution

HOLEID	INTERCEPT FROM	INTERCEPT TO	LENGTH	Cu (%)	Ag (ppm)	Au (ppm)	Zn (ppm)
MRRC0047	50	62	12m	0.46	4.92	0.01	212.00
MRRC0047	74	82	8m	0.22	1.67	0.01	196.00
MRRC0047	86	88	2m	0.17	1.82	0.01	177.00
MRRC0047	94	108	14m	0.48	2.70	0.01	252.00
MRRC0047	116	122	6m	0.26	1.92	0.01	268.00
MRRC0053	64	66	2m	0.27	3.40	0.01	114.00
MRRC0054	58	60	2m	0.27	2.14	0.01	202.00
MRRC0054	66	68	2m	0.16	1.89	0.01	166.00

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CRITERIA	EXPLANATION
SECTION 1 – SAMPLING TECHNIQUES AND DATA	
Sampling techniques	<ul style="list-style-type: none"> Reverse circulation (RC) drilling was used to obtain 2.0m downhole interval samples. 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. Duplicate samples taken at a set frequency of one every twenty samples (5% of total samples) from the cone splitter to monitor sampling representivity. Geophysical gamma density measurements collected downhole by ABIMS geophysical contractor using a Geovista Dual Density logging tool (Caesium source, density range 1-3.5g/cc) to ascertain approximate in-situ density values. Tool is regularly calibrated every 2 weeks using a range of known media and a calibration hole.
Drilling techniques	<ul style="list-style-type: none"> Reverse Circulation drilling employing a 140mm diameter face sampling hammer.
Drill sample recovery	<ul style="list-style-type: none"> 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. All samples are weighed at the laboratory to continually monitor and record sample size. To ensure maximum sample recovery and representivity of the samples, the field geologist was present during drilling to continuously monitor the sampling process. Any issues were immediately rectified 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. No relationship between sample recovery and grade has been demonstrated.
Logging	<ul style="list-style-type: none"> The entire lengths of RC holes were logged on a 2m interval basis, 100% of the drilling was logged. Where no sample was returned due to voids/cavities it is recorded as such. Logging is coded using the company geological legend and entered into the company database after validation. All holes were downhole geophysical logged (or attempted) for Natural Gamma, Resistivity, Gamma Density, Caliper and Magnetic Susceptibility. Not all holes were open at depth which precluded 100% coverage of measurements from all of the drillholes.
Sub-sample techniques	<ul style="list-style-type: none"> 1:10 of the coarse crushed samples are duplicate sampled by the lab to ensure sample homogeneity and monitor the additional splitting stage performed by the lab and approximately 1:20 pulp samples are duplicated by the lab. All RC samples were collected on two meter down hole intervals passed through a cone splitter to collect a nominal 4.0kg-6.0kg sample. The majority of samples are reported as dry, however a proportion of below water table samples are reported as being moist or wet. The sample sizes are considered to be appropriate to correctly represent the mineralisation, the thickness and consistency of intersections, the sampling methodology and percent values assay ranges for the primary elements.

Quality of assay data and laboratory tests	<ul style="list-style-type: none"> • All samples submitted to Intertek Genalysis Laboratory in Perth and assayed using 4 Acid Digest and ICP-MS and Au by Fire Assay. • Laboratory procedures are in line with industry standards and are appropriate for Precious and Base Metals analysis. • 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.
Verification of sampling and assaying	<ul style="list-style-type: none"> • 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. The Competent Person for this report has visited site and inspected all sampling processes in the field. • All primary data is captured electronically on field Toughbook laptops using acQuire™ 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. • All data is sent to Perth and stored in a secure, centralised acQuire SQL database which is administered by a full database administrator. • Documentation related to data custody, validation and storage are maintained on the company's server.
Location of data points	<ul style="list-style-type: none"> • Drillhole collars are located using a DGPS operated by trained and experienced company personnel. • The grid system for the Walker Copper Project is MGA_GDA94_Z50 and for the Copper Range Project is MGA_GDA94_Z51. • Downhole gyroscopic surveys are attempted on all 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 +/-1° in azimuth and +/-0.1° in inclination.
Data spacing and distribution	<ul style="list-style-type: none"> • RC drill spacing at the Copper Range Project was selected to align with historical drill sections and targeting a perpendicular orientation to the strike of the known mineralisation. • RC drill spacing for the Walker Copper Project was a nominal 100m by 100m grid, oriented to be perpendicular to the geophysical anomaly being targeted. • Sample compositing has not been applied to the RC samples: all RC samples are collected at 2m intervals.
Sample Security	<ul style="list-style-type: none"> • Chain of custody is managed by Atlas. Samples are delivered to a dispatch point in Port Hedland by Atlas Staff and a consignment number issued by the transport company. Samples are transported to the relevant laboratory by the transport company and once received at the laboratory, the consignment of samples is receipted against the sample dispatch documents. Samples are stored in a secure yard at the lab until analysis.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • Mineralisation at Copper Knob is interpreted to be steeply dipping to the southeast and drilling was oriented at approximately 60° towards 320°. • Mineralisation at Copper Knob East is interpreted to be steeply dipping to the south-southeast and drilling was oriented at 60° towards 355°. • The drillholes at the Walker Copper Project have been designed to initially test the geophysical target and the potential for near surface sulphide mineralisation that may be amenable to mining by open cut mining methods. • No drilling orientation and sampling bias has been recognized at this time and is not considered to have introduced a sampling bias.

Audits or reviews

- A detailed audit of the Atlas acQuire drillhole database is performed regularly by independent database management consultants.

CRITERIA	EXPLANATION
SECTION 2 – REPORTING OF EXPLORATION RESULTS	
Mineral tenement and land tenure status	<ul style="list-style-type: none"> • The Copper Range Project is located wholly within Exploration Lease E52/1772, Mining Lease M52/211 and Retention Licence R52/2. These tenements are all 100% Atlas owned. • The Walker Copper Project is located within Exploration Licence E45/3858. The tenement is 100% Atlas owned. • Native Title agreements exist across these areas. • 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	<ul style="list-style-type: none"> • The Copper Range Project area has been explored for Au and Cu by a number of parties for over 50 years. Most recently Warwick Resources completed an exploration program that included RC drilling (20 holes) and a significant number of Rock Chip samples. • No previous significant exploration has been completed over the Walker Copper Project area. The adjacent area has been previously explored for iron ore by Atlas Iron.
Geology	<ul style="list-style-type: none"> • The Copper Range project is located within the Jimblebar greenstone belt, which forms part of the Sylvania Inlier, an Archaean granite-greenstone terrane. Mineralisation styles encountered at Copper Range include Volcanogenic Hosted Massive Sulphide (VHMS), disseminated stringer/stockwork and exhalite hosted Cu-Au-Magnetite. • The Walker Copper Project is interpreted to lie within a complex structural zone in the mafic and ultramafic volcanic rocks of the Warrawoona Group, at or adjacent to the contact with the Gorge Creek Group and close to the contact with the Carlindi Granitic Complex.
Data aggregation methods	<ul style="list-style-type: none"> • A 0.15%Cu lower cut-off has been applied to the reported results, with a maximum internal dilution of 2m. No top cuts have been applied.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> • Reported results represent downhole length only, true width is not known.
Balanced Reporting	<ul style="list-style-type: none"> • Entire assayed intervals containing significant results have been reported.
Other substantive exploration data	<ul style="list-style-type: none"> • Not Applicable.
Further work	<ul style="list-style-type: none"> • Geological interpretation of all results is still to be completed. • Further on the ground exploration is planned at Walker Copper Project to assess targets generated through the review of existing geophysical data.