

**SEPTEMBER 2019 QUARTERLY ACTIVITIES REPORT****31 October 2019****ASX : ARV****ATY : FRANKFURT****ARTTF : OTCQB****GOLD FOCUSED**

ARTEMIS RESOURCES LIMITED IS AN AUSTRALIAN MINERAL DEVELOPER ADVANCING ITS WEST PILBARA BASE METALS, BATTERY AND PRECIOUS METALS ASSETS TOWARDS PRODUCTION.

ARTEMIS HAS CONSOLIDATED A MAJOR LAND HOLDING IN THE WEST PILBARA AND IS THE 100% OWNER OF THE RADIO HILL OPERATIONS AND PROCESSING INFRASTRUCTURE, STRATEGICALLY LOCATED 30 KM FROM THE CITY OF KARRATHA, THE POWERHOUSE OF THE PILBARA.

ARTEMIS ALSO HAS 1,140 KM<sup>2</sup> IN THE PATERSONS RANGE WITH ALL GOLD AND COPPER TARGETS WITHIN 40KM OF THE TELFER GOLD MINE AND SURROUNDING THE HAVIERON DISCOVERY BEING DRILLED BY NEWCREST.

**WANT TO KNOW MORE ABOUT ARTEMIS?**[Follow @Artemis\\_ARV](#)

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**HIGHLIGHTS****Patersons Range, Armada Au-Cu Project**

- 13 geophysical targets identified adjacent to Newcrest/ Greatland Gold new Haveron gold/copper discovery near Telfer.
- 7 targets approved by Department of Mines for drilling at Artemis's Armada Project
- A seismic data review over Artemis's tenements near Haveron is proceeding well, with report due in early November.

**Carlow Castle Au-Cu-Co Project**

- CSA Global's structural team has mapped the exposed orebody with a new geological and structural interpretation completed
- New interpretation of the Carlow Castle orebody will form the basis for an updated resource estimation. A new resource estimate is expected in early November
- A Scoping Study at Carlow Castle will be undertaken following the updated resource estimate, with the Scoping Study aimed for completion by mid-December
- Mining tenement application over the Carlow Castle resource area to be submitted once Scoping Study is completed
- Carlow Castle West Sub Audio Magnetics interpretation is nearing completion with results expected to be announced within one week
- 21 targets identified west of the Carlow Castle resource area with a strike of 5km.
- Top 4 targets are 400 metres to the west of the current resource
- Coincident geochemical anomalism with new targets

**Corporate**

- Completion of Share Purchase Plan raising \$2.7m before costs.
- In October 2019 Artemis finalised a \$5.9m capital raise before costs. A portion of the funds has been used to retire Artemis convertible debt in total.

**Artemis Resources' Non-Executive Chairman Sheik Maktoum commented:**

*“The September quarter has built strongly on the June Quarter, with focus on undertaking work to reassess the Carlow Castle gold copper Project, continuing to advance work programs in the Patersons Range around the Haverion gold copper discovery being drilled by Newcrest, and on removing the convertible note debt within the company*

*We've seen increased activity in the Paterson Range by other companies and based on our own exploration at the Armada tenement we are refining drill-targets based on our aeromagnetic, gravity and seismic surveys. Work by Newcrest will give us better vectors for our drilling in due course.*

*During the period, we received approval to drill our Armada Project, subject to a heritage survey, which surrounds Haverion on 3 sides, and defined 21 new targets to the west of the Carlow Castle Au-Cu-Co resource, which has a new resource estimate being undertaken by CSA Global based on structural information being integrated in to the interpretation of mineralisation.*

*We've also continued to realign our corporate goals and constraints by raising funds, to repay a debt facility and put Artemis in a significantly stronger position. We will continue to advance our key projects in the Karratha and Patersons Range, and divest non-core assets to fund these projects.”*

**Artemis Resources Limited** (“Artemis” or “the Company”) (ASX:ARV, Frankfurt: ATY, US OTCQB: ARTTF) is pleased to provide an update on activities for the quarter ended 30 September 2019.

**PATERSON RANGE EXPLORATION****(ASX News Release 23<sup>rd</sup> September 2019)**

Western Australian DMIRS (Department of Mines Industry Regulation and Safety) has now approved a Program Of Work (POW) for ground disturbing activities (which includes drilling) at Artemis's 100% owned 600 km<sup>2</sup> Armada Project (E45/5276), in the Paterson Range area of Western Australia, which surrounds the Greatland Gold Haverion gold/copper discovery on three sides (Figures 1 and 2).

This Government approval will allow for the drilling at 7 targets identified by Artemis's recent gravity and magnetic surveys on the Armada Project as shown in Figures 1. A Heritage survey is required before ground disturbing activities take place and planning is in progress.

Seismic lines 1987 NC87-13 transect our Armada tenement and in 2018 a new seismic line (18GA-KB1) was completed, which is near our proposed tenement acquisitions through Rincon Resources (Figure 3). A report on the seismic lines and data review is due in October.

**LOOKING FORWARD**

A Heritage Survey is required before drilling activities can be undertaken and planning is underway to have this completed as soon as possible in 2020.

Reprocessing of Seismic data lines and integration with existing data is nearing completion with a report looking at structures that may control mineralisation expected in early October.

Work at the Haverion project (owned by Greatland Gold – AIM:GGP), increased the Company's confidence in Armada when Haverion was recently the subject of a USD \$65 million ( AUD \$94 million) Farm-In Agreement with Newcrest Mining Ltd (ASX: NCM) to advance the project, with an initial 10,000-metre drill program – to complement their nearby Telfer mine.

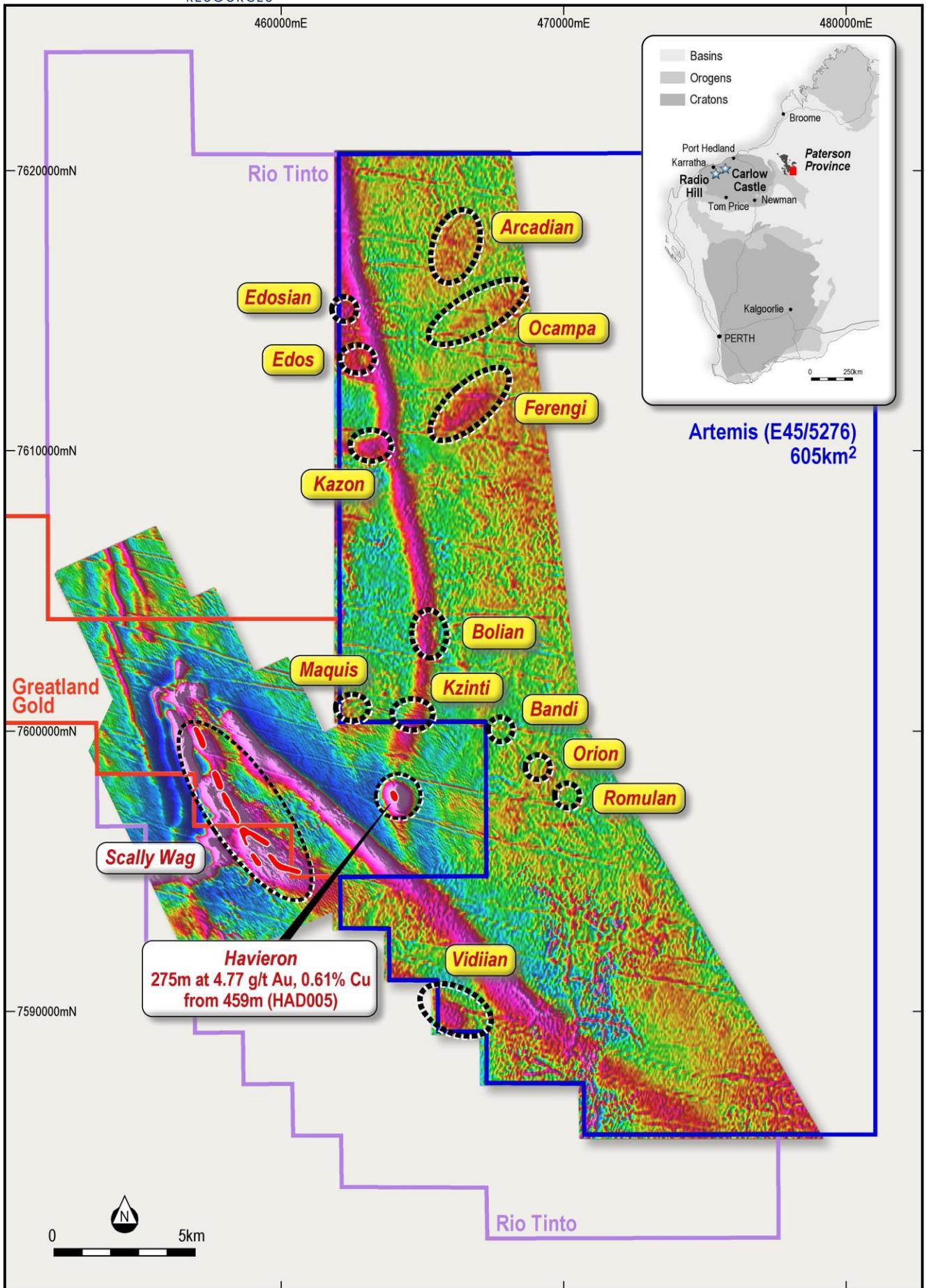


Figure 1: Artemis aeromagnetic and gravity surveys over the western half of the tenement, showing up to 13 targets, with data merged with the Greatland Gold Plc magnetic data – hence we are able to show anomalies off our tenement.

## CARLOW CASTLE RESOURCE ESTIMATION

Carlow Castle is a 7.7Mt JORC resource gold and copper dominant ore body with cobalt credits (as released on 6 March 2019 to the ASX).

Artemis has previously outlined its plans to upgrade the resource to the Indicated classification by building upon reverse circulation (RC) drilling completed in 2018, with a diamond drilling (DDH) program later in 2019. A two stage 10,000m program was planned, with the first stage of 5,000m of ~36 holes from 100-280m in depth.

A structural review of Carlow Castle has been completed by CSA Global Pty Ltd (CSA). Importantly, the Carlow Castle mineralisation, which is defined by breccia, fracturing and veining within a basalt, is almost outcropping at surface which would reduce the cost and time of potential extraction.

A thin veneer of 300mm to 1.5 metres of barren clay covers the Carlow Castle mineralisation. Following consultation with CSA a program of structural mapping has been completed.

The mapping will confirm structural interpretations from diamond drilling completed in 2018, and potentially reduce the amount and cost of follow-up drilling. The aim is to quickly increase a significant portion of the resource classification to indicated status, advance Carlow Castle to a Scoping Study and Feasibility Stage, allowing a decision to mine to be made.

The new resource estimation based on the above work is due in early November, with a scoping study to follow, which is due by mid-December. The scoping study will be looking at using the Radio Hill processing plant which the company owns 100%.

## CARLOW CASTLE SAM SURVEY

### (ASX News Release 16<sup>th</sup> September 2019)

On 1st July 2019 the Company announced that it had commenced a Sub-Audio Magnetics (SAM) survey to explore for additional gold-copper-cobalt at Carlow Castle to the southwest of the current resource area.

SAM surveying has previously been successfully utilised at Carlow Castle, providing an additional vector to go with geochemical sampling and geological interpretation. The SAM survey has been completed and interpretation is underway with results due in mid-September. Management is confident that the results of the SAM survey will indicate that mineralisation at Carlow Castle extends to the west and south west of the resource.

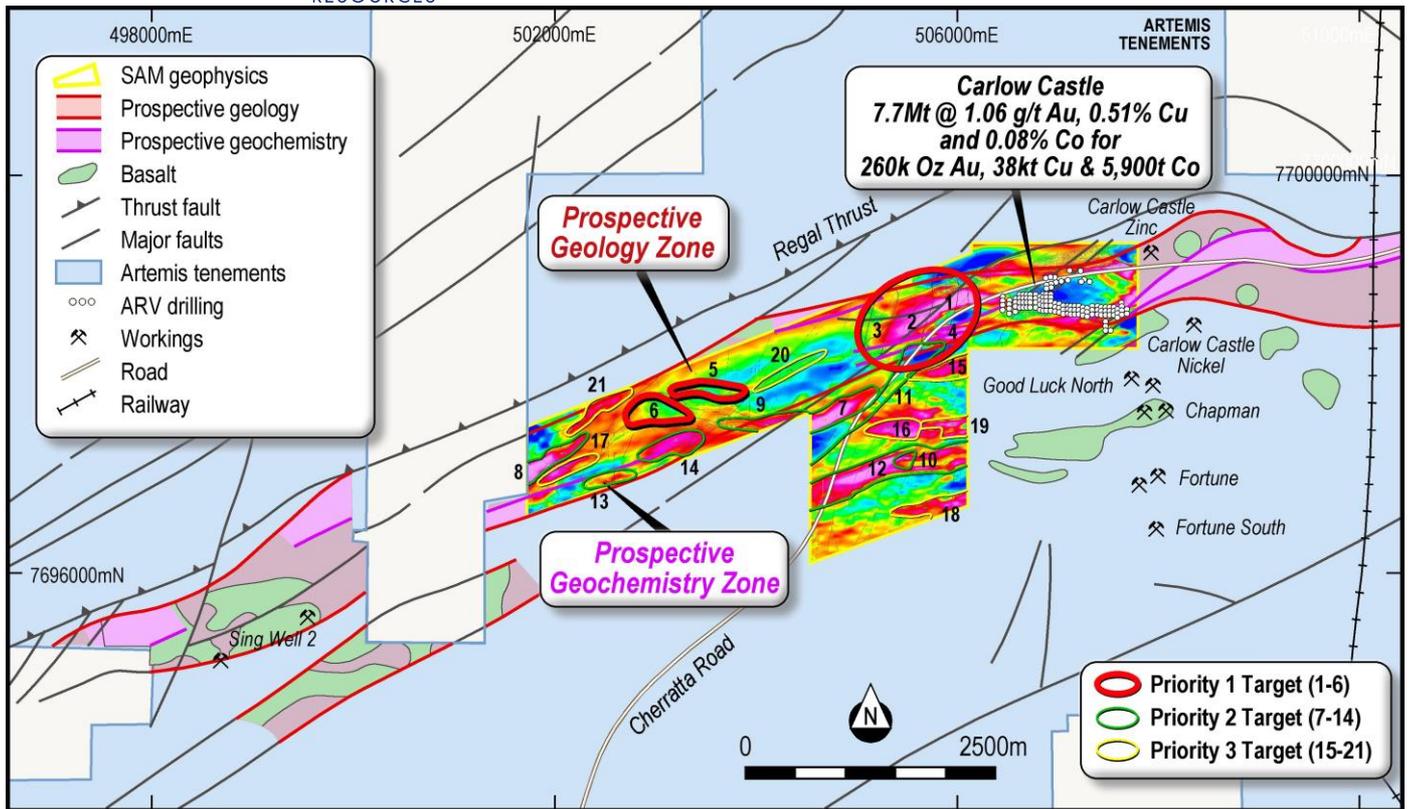
A Mining Licence application for Carlow Castle is nearing completion and will be submitted in the next 2 weeks. This will allow the approvals process for mining to run concurrently with a resource upgrade, scoping study and feasibility work.

The completed SAM survey has identified a total of twenty-one targets (Figure 2), producing three datasets; **TMI** (magnetics), **MMC** (magneto-metric conductivity) and **TFEM** (Total Field Electromagnetics).

**TMI** data are measured passively as a function of the Earth's magnetic field distorted by magnetic minerals in the rocks, **MMC** data is measured while current is flowing through the ground (during 'on-time'), and **TFEM** data are measured as that current is switched off and there is a 'decay' of potential.

Carlow Castle, located approximately 25km South East of the Pilbara town of Karratha, (Figure 5) is a gold, copper and cobalt project containing a 7.7Mt JORC Resource (See ASX announcement 6/03/19).

Carlow Castle covers a strike length of 1.2km and was successfully identified using SAM exploration in early 2018. In conjunction with geochemical anomalies, SAM targeting drove the Carlow Castle drilling program in 2018 that increased the resource by 71%.



**Figure 2: The total completed SAM survey in Carlow Castle.**

#### TARGETS IDENTIFIED FROM SAM SURVEY

**Twenty-one** target areas have been identified and ranked from the SAM results and interpretation. These are shown in Figure 1 - 4 and summarised in Table 1.

Six **Priority 1** targets have been identified, **CC01** to **CC06**. **CC01** and **CC03** are north-south structural trends similar to Quod Est. **CC02** and **CC04** are extensions of previously identified east-west trending conductive features related to known gold, copper and cobalt anomalies. **CC05** and **CC06** both relate to the strong magnetic high that appears to be folded, with **CC05** targeting a possible alteration or intrusive feature and targeting a low magnetic zone within the apex of the fold.

Eight **Priority 2** targets (**CC07** to **CC14**) have been identified **CC06**. **CC07**, **CC09**, **CC12** and **CC13** are all MMC highs or features coincident with magnetic highs. **CC08** is an MMC high on the margin of strongly magnetic unit. **CC10** and **CC14** are MMC highs with structural complexity. **CC11** is targeting a possibly shear zone or major fault.

Seven **Priority 3** targets (**CC15** to **CC21**) have been identified. **CC15**, **CC16**, **CC17** and **CC18** are all MMC highs or features coincident with magnetic highs. **CC19** targets an MMC high with structural complexity. **CC20** targets a weakly conductive trending feature associated with major structure. **CC21** targets a moderate MMC high with structural complexity.

In Figure 3, the plane shows that the initial survey where the current resource is located, appears to be a consistent geophysical feature with the current SAM survey. The Company views this as a positive correlation to a possible continuous mineralisation structure.

The interpreted priority targets show this same correlation to the interpreted geology (Figure 4) and the geochemical and geological corridors in Figure 5.

Priority targets 1 to 4 will be the focus for the Company as these are adjacent to the current identified resources at Carlow Castle.

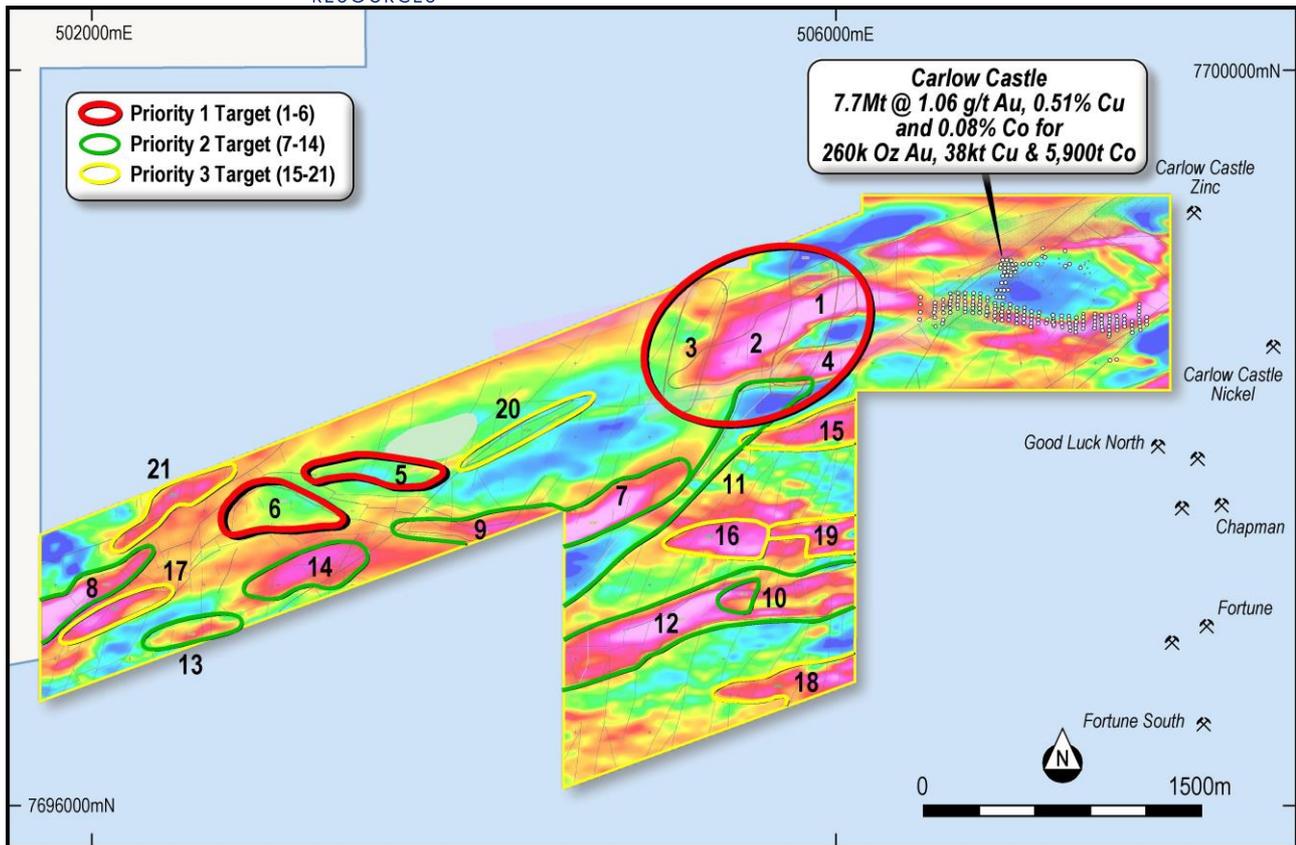


Figure 3: Carlow Castle targets shown in red (Priority 1), yellow (Priority 2) and green (Priority 3) outlines, over MMC image non-linear. Black lines show interpreted structure.

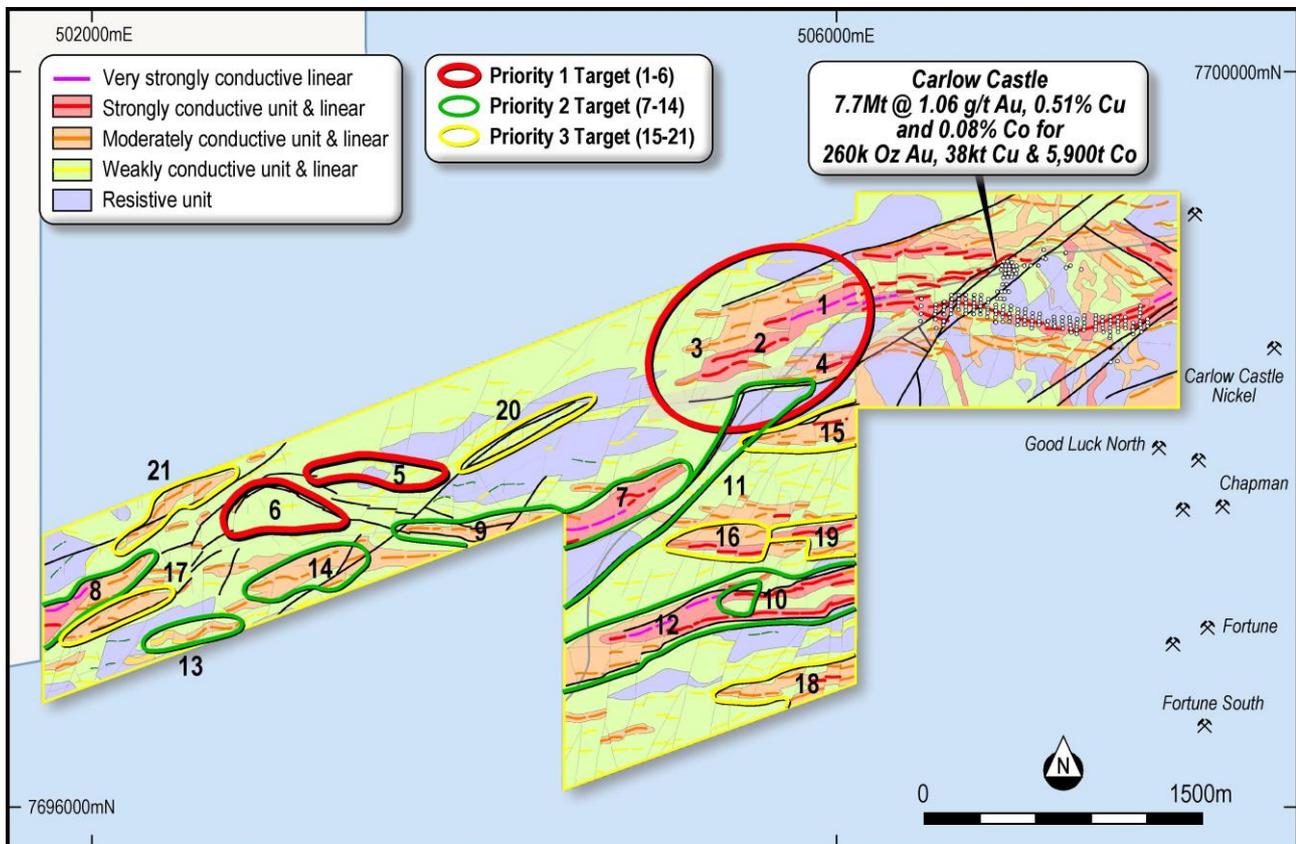
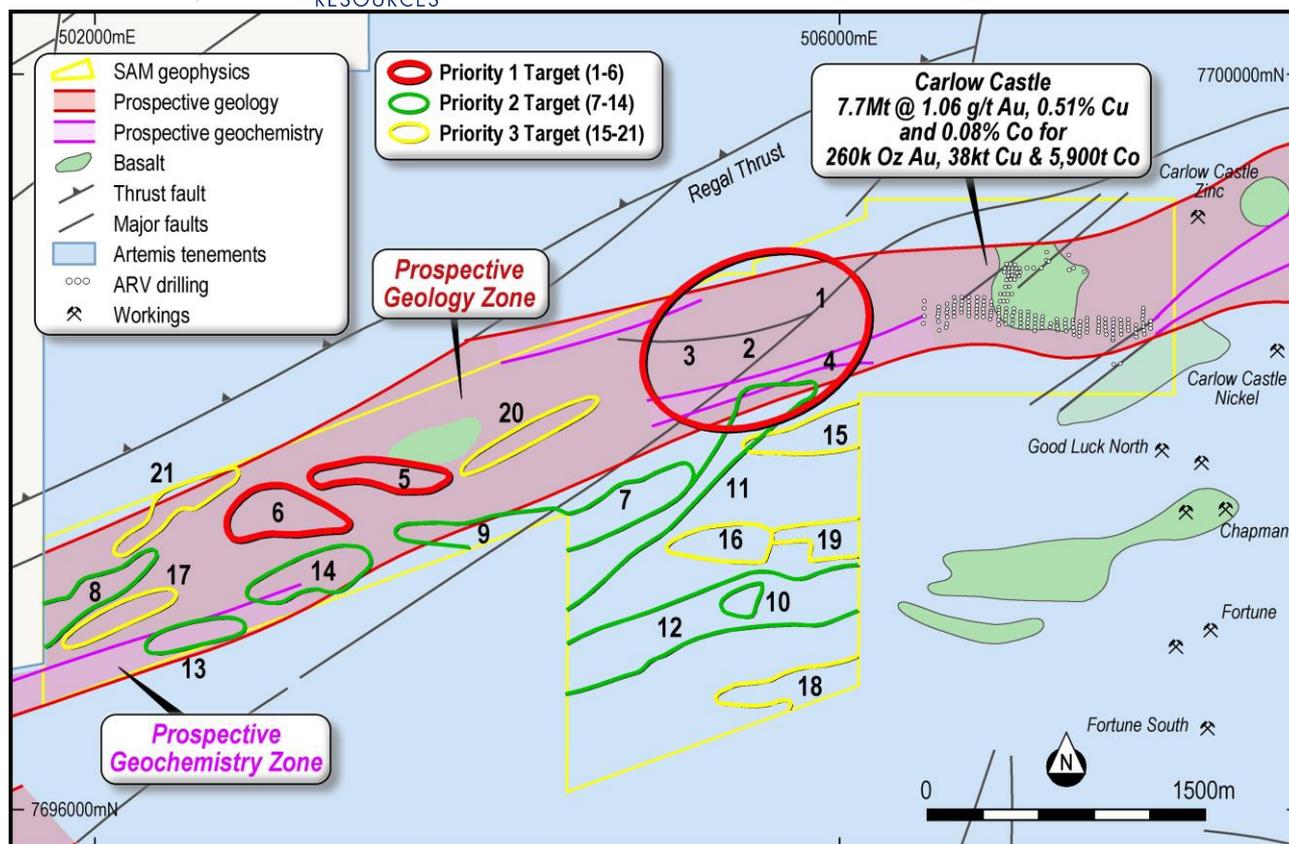


Figure 4: Carlow Castle targets shown in red (Priority 1), yellow (Priority 2) and green (Priority 3) outlines, over interpreted geology.



**Figure 5: Carlow Castle targets shown in red (Priority 1), yellow (Priority 2) and green (Priority 3) outlines, over prospective geochemical surveys and geological interpretations.**

## LOOKING FORWARD

SAM surveying has successfully delineated coherent trends in the project area which correlate with previously identified mineralisation/anomalism, and provides follow up targets for initial exploratory shallow testing. Overall the results highlight that the SAM technique is an effective exploration tool for this project area. The company based on the results will conduct structural target mapping.

In contrast to the previous SAM block the magnetic data in this area was of high quality. The dataset opens up the possibility of completing an aeromagnetic interpretation over the project area to map geology and identify structures and trends.

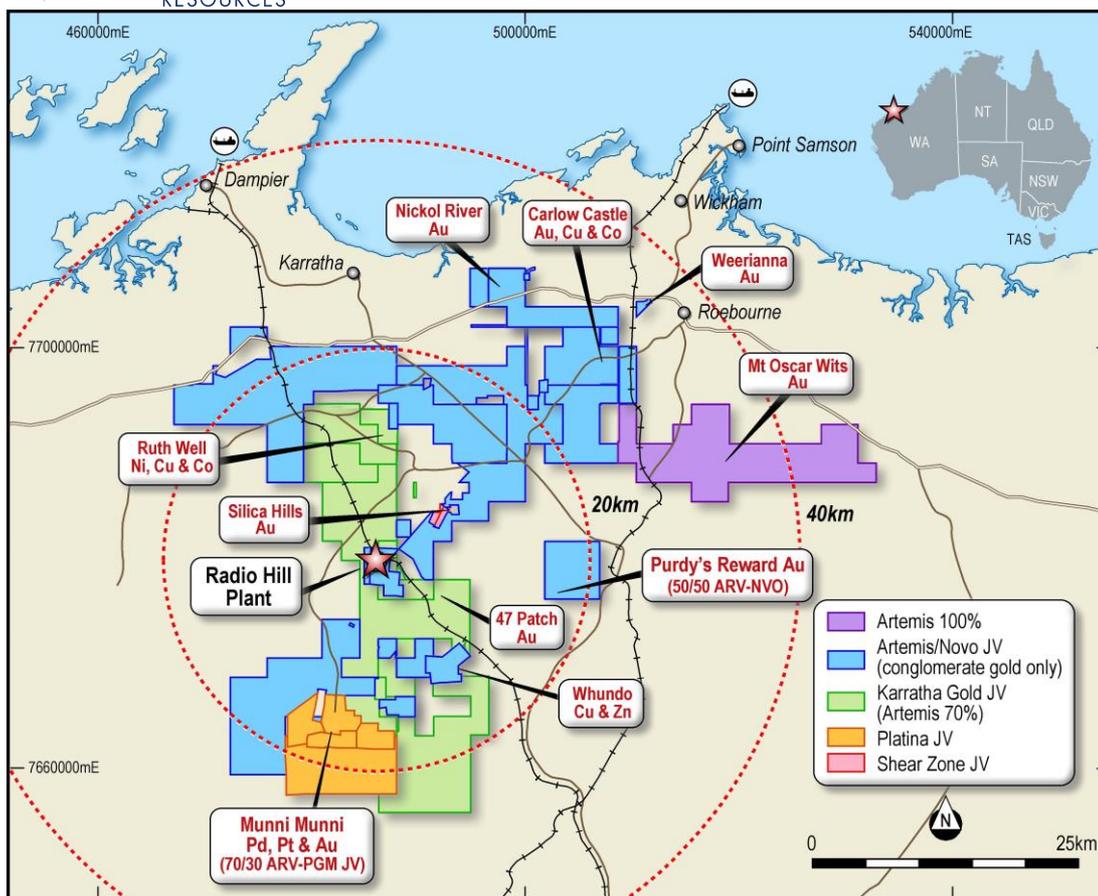
A search has identified open file 50m aeromagnetic data over part of the tenement area, which is detailed enough to generate and interpretation at a similar scale to the SAM interpretation (1:5000) which may be used to further target areas to undertake SAM.

All targets should be re-assessed and reviewed as new geological and drilling data becomes available. Field checking/mapping where outcrop/subcrop is present has been recommended to assist in evaluating targets/related structures and prioritising/ranking future exploration efforts.

**Table 1: Exploration targets at Carlow Castle based on the SAM data.**

Target ID	Priority	Description
CC01	1	North-south structural trend similar to Quod Est. Overlaps known gold copper and cobalt anomalism.
CC02	1	Western extension of previously identified target. MMC high with structural complexity. Possible step-over bend inferred by MMC units/ faults.
CC03	1	North-south structural trend similar to Quod Est. Sharply faulted termination of prospective MMC high from target CC02.

<b>CC04</b>	1	Repetition of previously identified target. MMC high truncated by faulting at western end, cut by cross faults and bounded on the south side by a major domain fault.
<b>CC05</b>	1	Elongate magnetic high, possibly demagnetised at its' western end. Possible stratigraphic repetition (thrusting?), or anomalous alteration or intrusive feature. Disrupted by faults and flexures.
<b>CC06</b>	1	Subcircular to elongate low magnetic zone within apex of folded magnetic stratigraphy (anti/ synclinal?). Cut by multiple faults, and with possible over-step and displacement (thrusting?).
<b>CC07</b>	2	Strongly conductive east-northeast trending MMC high coincident, also marked by magnetic stratigraphy. Bounded on south side by major fault, and cross cut by multiple NNE trending faults.
<b>CC08</b>	2	Strongly conductive MMC feature within relatively demagnetised area of stratigraphy.
<b>CC09</b>	2	Likely continuation of CC07. Conductive MMC high underlain by strongly magnetic units. Bounded by major faults with cross cutting trends.
<b>CC10</b>	2	Area of structural complexity associated with MMC high. Stratigraphy appears faulted and offset by E-W and NNE trending faults. Possible thrust repetition.
<b>CC11</b>	2	Interesting low conductivity (and low magnetic) area bounded on either side by major structure. Possible shear zone or major fault?
<b>CC12</b>	2	Strongly conductive east-northeast trending feature associated with major structure. Magnetic amplitude diminished along eastern half (alteration?) and conductivity channelled around the centre, suggests change to stratigraphy or an alteration zone.
<b>CC13</b>	2	Coincident MMC and magnetic high cut by cross faults. Anomalous sub-circular magnetics suggests possible intrusive/ or alteration.
<b>CC14</b>	2	MMC high adjacent to major structure cut by major structure and its splays.
<b>CC15</b>	3	MMC high coincident with magnetic stratigraphy containing several cross cutting faults and adjacent to possible shear zone.
<b>CC16</b>	3	MMC high coincident with magnetic anomaly (elongate to sub-circular magnetic features with possible low magnetic halo) and containing several cross cutting faults.
<b>CC17</b>	3	MMC high coincident overlapping magnetic stratigraphy and bound by major structure.
<b>CC18</b>	3	MMC high coincident overlapping moderately magnetic structure and cross cut by several faults.



**Figure 6: Artemis Resources' tenements in the West Pilbara**

## CORPORATE

### Share Purchase Plan

Artemis launched a Share Purchase Plan (SPP) during the period to raise \$1.5m to fund Carlow Castle development, exploration at Armada and for debt reduction. This SPP was led and underwritten by Patersons Securities Limited ("Patersons"), with Artemis Chairman Sheikh Maktoum Hasher al Maktoum a sub-underwriter to the SPP in the amount of \$750,000. The SPP which closed on Tuesday 23 July 2019 raised \$2,707,500, before costs (87,338,535 shares at 3.1 cents per share).

### Capital Raise and Debt Repayment

The Convertible Note with Riverfort Global Capital Limited ("Riverfort") was restructured extending the maturity date to 31 January 2020. Subsequent to this restructure, a capital raise was undertaken in October 2019 raising \$5.9m, before costs (184,375,000 shares at 3.2 cents per share). This has enabled the Company to retire the convertible note debt and the release of the security over the Radio Hill processing plant is expected shortly.

### Options Issued

During the quarter the Company issued 16,500,000 unlisted options to directors, as approved by shareholders on 22 July 2019, exercisable at 8 cents per share before 15 May 2022.

In addition, the Company issued 20,000,000 unlisted options to advisors, as approved by shareholders on 22 July 2019, exercisable at 8 cents per share before 31 July 2019, and 18,652,175 unlisted options to the convertible note holders for restructuring the convertible note debt, exercisable at 8 cents per share before 31 July 2019.



**Tenement Schedule September 2019**  
**All tenements are in Western Australia**

Project	Tenement	Status	Company	Project	Tenement	Status	Company
Purdy's Reward	E47/1745 <sup>1</sup>	Live	KML No 2 Pty Ltd Karratha Gold Pty Ltd	Sing Well	P47/1622	Live	KML No 2 Pty Ltd
	L47/782	Pending	KML No 2 Pty Ltd		P47/1112	Live	KML No 2 Pty Ltd
Carlow Castle	E47/1797	Live	KML No 2 Pty Ltd	Nichol River	P47/1126	Live	KML No 2 Pty Ltd
Ruth Well	P47/1929	Pending	KML No 2 Pty Ltd		P47/1925	Pending	KML No 2 Pty Ltd
	E47/3719	Pending	KML No 2 Pty Ltd		E47/2716	Live	KML No 2 Pty Ltd
	E47/3487 <sup>2</sup>	Live	Sorrento Resources Pty Ltd		M47/1527	Live	KML No 2 Pty Ltd
	E47/3341 <sup>2</sup>	Live	Hard Rock Resources Pty Ltd		E47/3373	Pending	KML No 2 Pty Ltd
47 Patch	E47/3361 <sup>2</sup>	Live	Hard Rock Resources Pty Ltd		M47/87	Live	D & K Corps Investments
	E47/3443 <sup>2</sup>	Live	Elysian Resources Pty Ltd		M47/127	Live	D & K Corps Investments
Elysian / Hard Rock	E47/3564 <sup>2</sup>	Live	Elysian Resources Pty Ltd		M47/401	Live	D & K Corps Investments
	E47/3340 <sup>2</sup>	Live	Hard Rock Resources Pty Ltd		M47/421	Live	D & K Corps Investments
	E47/3390 <sup>2</sup>	Live	Hard Rock Resources Pty Ltd		M47/435	Live	D & K Corps Investments
	P47/1832 <sup>2</sup>	Live	Hard Rock Resources Pty Ltd		M47/577	Live	D & K Corps Investments
	P47/1881 <sup>2</sup>	Live	Hard Rock Resources Pty Ltd		L47/565	Pending	D & K Corps Investments
	E47/3534 <sup>2</sup>	Live	Jindalee Resources Pty Ltd		L47/687	Live	D & K Corps Investments
	E47/3535 <sup>2</sup>	Pending	Jindalee Resources Pty Ltd		L47/689	Live	D & K Corps Investments
	P47/1833 <sup>2</sup>	Pending	Jindalee Resources Pty Ltd	E47/3707	Live	KML No 2 Pty Ltd	
Whundo	L47/820	Pending	KML No 2 Pty Ltd	Balmoral	E47/3708	Live	KML No 2 Pty Ltd
	L47/163	Live	Fox Radio Hill Pty Ltd	Pyramid	E47/3709	Live	KML No 2 Pty Ltd
	M47/7	Live	Fox Radio Hill Pty Ltd		E47/3720	Live	KML No 2 Pty Ltd
	M47/9	Live	Fox Radio Hill Pty Ltd		E47/3721	Live	KML No 2 Pty Ltd
Radio Hill	M47/161	Live	Fox Radio Hill Pty Ltd		E47/3722	Live	KML No 2 Pty Ltd
	M47/337	Live	Fox Radio Hill Pty Ltd	E47/3723	Live	KML No 2 Pty Ltd	
Mt Oscar	E47/1217	Live	Fox Radio Hill Pty Ltd	Roebourne	E47/4069	Pending	KML No 2 Pty Ltd
Weerianna	M47/223 <sup>3</sup>	Live	Western Metals Pty Ltd	Greater Munni Munni	E47/3545	Pending	KML No 2 Pty Ltd
Silica Hills	M47/177 <sup>4</sup>	Live	Western Metals Pty Ltd		E47/3546	Live	KML No 2 Pty Ltd
	M47/288 <sup>4</sup>	Live	Western Metals Pty Ltd		E47/3547	Live	KML No 2 Pty Ltd
	M47/93 <sup>5</sup>	Live	Shear Zone Mining Pty Ltd		E47/3612	Live	KML No 2 Pty Ltd
	M47/232 <sup>5</sup>	Live	Shear Zone Mining Pty Ltd	E47/3160	Live	KML No 2 Pty Ltd	
	L47/781	Pending	KML No 2 Pty Ltd	Munni Munni	E47/3322 <sup>6</sup>	Live	Karratha Metals Pty Ltd
	E47/1746	Live	KML No 2 Pty Ltd		M47/123 <sup>6</sup>	Live	Platina Resources Ltd
Telfer	E45/5276	Live	Armada Mining Pty Ltd		M47/124 <sup>6</sup>	Live	Platina Resources Ltd
					M47/125 <sup>6</sup>	Live	Platina Resources Ltd
					M47/126 <sup>6</sup>	Live	Platina Resources Ltd
					M08/191 <sup>7</sup>	Live	Artemis Resources Ltd
				Mt Clement	M08/192 <sup>7</sup>	Live	Artemis Resources Ltd
					M08/193 <sup>7</sup>	Live	Artemis Resources Ltd

- <sup>1</sup> – 50% Artemis – Joint Venture with Novo Resources
- <sup>2</sup> – 70% Artemis – Karratha Gold Joint Venture
- <sup>3</sup> – 80% Artemis
- <sup>4</sup> – 70% Artemis
- <sup>5</sup> – 34% Artemis
- <sup>6</sup> – 70% Artemis – Joint Venture with Platina Resources
- <sup>7</sup> – 80% Artemis – Joint Venture with Northern Star Resources