

### **ASX Announcement**

3 June 2025

# Substantial Drilling and Carlow Gold Studies to Commence in September Quarter

Artemis Resources Limited ("**Artemis**" or "the **Company**") (ASX/AIM: ARV) is pleased to outline a substantial drill program of up to 5,000m including extensional drilling and technical studies at the Carlow Gold and Copper Project, RC drilling at Titan, and exploration at Cassowary.

- Carlow Gold and Copper Project 3,800m diamond drilling to scope out potential for significant extensions to the Carlow Mineral Resource<sup>1</sup> which contains 374koz gold and 64,000t copper and to provide samples for metallurgical test work and further studies.
- 2. **Titan Gold Targets** 1,200m shallow low-cost RC drilling of geophysical anomalies in areas with high-grade surface gold occurrences<sup>2</sup> and a brecciated host sequence.
- 3. **Cassowary Intrusion** Gravity survey across a unique untested >5km wide intrusion east of Kalgoorlie<sup>3</sup> to target drilling for potential IOCG-type copper/gold mineralisation.

### Carlow Gold/Copper Project

Diamond drilling will test the potential for significant extensions to the Carlow high-grade gold and copper lode system, well beyond the current limit of drilling<sup>4</sup>, including:

- Widely spaced holes within a 600m gap along strike between the existing resource and a recent intersection of: 7m @ 2.9g/t Au, including 1m @ 15.3g/t Au<sup>5</sup>
- Widely spaced holes to follow up an historic intersection of: 4m @ 11.1 g/t Au and 2.0% Cu 120m below the Carlow resource, which remains open below 380m
- Project Manager appointed to oversee technical studies including metallurgical test work, conceptual mining studies and a review of processing options

#### **Titan Gold Targets**

- Infill gravity survey to confirm 4 gravity anomalies (G1-G4) in an area of surface gold occurrences<sup>6</sup> and strong brecciation within ~2km wide interpreted thrust zone
- RC drilling to test the G1 anomaly and wider ultramafic/sediment sequence which hosts elevated gold in recent drilling up to 0.5g/t Au (peak assay: 1m @ 16.4g/t Au)<sup>7</sup>.

<sup>&</sup>lt;sup>1</sup> Refer to Artemis ASX announcement on 13 October 2022

<sup>&</sup>lt;sup>2</sup> Refer to Artemis ASX announcement on 28 January 2025

<sup>&</sup>lt;sup>3</sup> Refer to Artemis ASX announcement on 28 January 2025

<sup>&</sup>lt;sup>4</sup> Refer to Artemis ASX announcement on 13 October 2022 and Figure 1 in this announcement

<sup>&</sup>lt;sup>5</sup> Refer to Artemis ASX announcement on 28 April 2025

<sup>&</sup>lt;sup>6</sup> Refer to Artemis ASX announcement on 28 January 2025

<sup>&</sup>lt;sup>7</sup> Refer to Artemis ASX announcement on 28 April 2025

# **Cassowary Intrusion**

- Artemis EL application (330km<sup>2</sup>) covering the large Cassowary Intrusion is expected to be granted in September quarter. Gravity survey planned to assist drill targeting.
- Potential for IOCG type copper-gold mineralisation has added credibility with nearby applications by WA1 Resources (2 adjacent EL's) and Teck Resources (7 EL's)

### Julian Hanna, Managing Director, commented:

"The next few months should be an exciting period for Artemis with drill programs aimed at growing the scale of the Carlow Project and technical studies required to move Carlow towards possible feasibility and early development stages. The first priority is widely spaced diamond drilling to scope out potential for significant extensions to the high-grade gold and copper lodes along strike and below the mineral resource announced in October 2022, and to provide core samples for metallurgical test work.

A further strategy to build Carlow is using low-cost RC drilling to test the potential for shallow gold mineralisation at Titan, only 2km west of Carlow. RC drilling at Titan will initially test a near-circular **~400m** wide gravity anomaly (G1) with small outcrops of brecciated and sheared chert which returned assays up to 41.4g/t gold (sample ID: 24AR28-048 reported 28 January 2025) from surface samples of ferruginous chert<sup>8</sup>. RC drilling is also planned across the Titan thrust zone to test the wider potential of this unusual feature. A heritage survey to enable wider access for drilling at Titan is scheduled in July.

The Company's other outstanding exploration project is the interpreted **Cassowary Intrusion** which occurs in a unique geological setting on the margin of a >500km long north-east trending crustal boundary, with surrounding geology disrupted over 10's of kms. Cassowary is a **rare opportunity to drill for possible IOCG type copper/gold mineralisation**. Artemis's 330km<sup>2</sup> EL application which covers Cassowary is expected to be granted in September Quarter and planning is underway for a gravity survey to assist drill targeting.

We look forward to reporting progress on these three gold and copper opportunities as soon as possible"

# Carlow Gold/Copper Project

The March quarter drilling program<sup>9</sup> combined with detailed surface mapping and a hole-byhole review of more than 400 historic holes at Carlow have resulted in a new interpretation of the geology and a better understanding of the potential for significant extensions to the highgrade gold/copper lode system at Carlow along strike and below the resource. (Refer Figure 1).

Widely spaced drilling is planned within two target areas:

- ~600m long zone along strike from Carlow East (below the Andover Intrusion), and:
- >1500m long zone below Carlow West and Carlow East (above the Regal Thust).

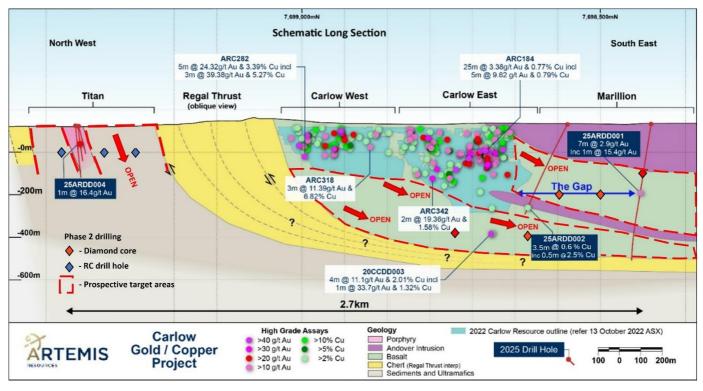
**5-6 diamond holes spaced 200m apart are initially planned** to scope out potential for high grade lodes extending into the two target areas. These areas are supported by high-grade gold intersected in two historic and recent holes (20CCDD003 and 25ARDD001) and by the new geological interpretation of low angle thrusting continuing below Carlow (Refer Figure 1).

Drilling will include large diameter core holes to collect ore samples for metallurgical test work. Artemis is in discussion with a leading metallurgical group to review historic test work and a range of processing options. The Company's Project Manager will oversee this program.

<sup>9</sup> Refer to Artemis ASX announcement on 28 April 2025



<sup>&</sup>lt;sup>8</sup> Refer to Artemis ASX announcement on 28 January 2025



**Figure 1**: Schematic long section of Carlow showing high-grade gold (>10g/t Au) & copper (>2.0% Cu) assays<sup>10</sup> projected onto section, interpreted geology, resource outline<sup>11</sup>, target areas (red dash line) and planned holes.

## Titan Exploration Targets

Titan is a large, structurally complex area interpreted from geophysical data and limited outcrop to occur within a >2km wide thrust zone dominated by Regal Thrust chert ridges along the southern margin. The central covered area at Titan is undrilled and may be underlain by an ultramafic/sediment sequence or intrusions into the thrust zone. Both scenarios may be prospective for gold. Surface gold occurrences from selective sampling of chert outcrops and quartz veins in four areas at Titan were reported in 2024 and summarised in January 2025<sup>12</sup>.

The only holes at Titan were drilled by Artemis in the March quarter 2025 across one of the surface gold occurrences. All 3 holes intersected elevated gold values from 0.2g/t to 0.5g/t Au, with one hole (25ARDD004) intersecting  $1m @ 16.4g/t Au^{13}$  within a porphyry intruded into a sequence of altered chrome rich ultramafic units overlying brecciated sediments.

Southern Geoscience has completed re-modelling of existing gravity data at Titan (200m by 100m station spacing) and identified four distinct gravity anomalies (G1-G4). The source of the Titan anomalies (refer Figure 2) is unknown with the area largely obscured by scree and sheet wash. The first target is anomaly G1, ~700m west of the Artemis drilling which intersected elevated gold in all holes peaking at a 1m @ 16.4g/t Au interval in porphyry<sup>14</sup>.

Small outcrops at G1 include brecciated, sheared and locally ferruginous cherts with high-grade surface gold values up to 41.4g/t Au from selective sampling of the ferruginous cherts<sup>15</sup>. A heritage survey of the western part of Titan is scheduled in mid-July which should allow RC drilling to proceed. 10 shallow RC holes are planned as an initial test of the G1 anomaly.

<sup>&</sup>lt;sup>15</sup> Refer to Artemis ASX announcement on 28 January 2025



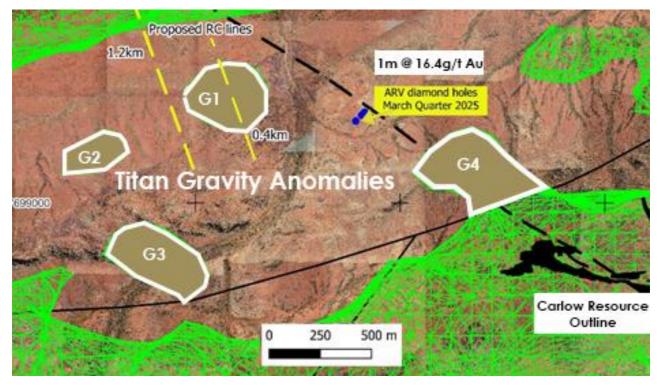
<sup>&</sup>lt;sup>10</sup> Refer to Tables 1-4 in this announcement

<sup>&</sup>lt;sup>11</sup> Refer to Artemis ASX announcement on 13 October 2022

<sup>&</sup>lt;sup>12</sup> Refer to Artemis ASX announcement on 28 January 2025

<sup>&</sup>lt;sup>13</sup> Refer to Artemis ASX announcement on 28 April 2025

<sup>&</sup>lt;sup>14</sup> Refer to WA1 Resources announcement on 28 April 2025



**Figure 2**: **Titan Gravity image showing gravity anomalies (G1-G4)**, location of 3 Artemis drill holes drilled during March Q (holes 25ARDD003, 25ARDD004, 25ARDD005)<sup>16</sup> and planned RC drill traverses across G1 area.

## **Cassowary Intrusion**

The Cassowary Intrusion has been interpreted from regional magnetic data and is located 450km east of Kalgoorlie, below an estimated 250-300m of Eucla Basin sediments. There is no previous drilling at Cassowary and depth of cover is based on historic diamond drill holes in the region. Diamond drilling in the Eucla Basin region has proved effective for drilling through Eucla Basin sediments and into basement targets.

Based on an interpretation of the magnetic data, the Cassowary Intrusion is large (>5km wide) and occurs in a unique geological setting on the margin of the >500km long Madura Crustal Boundary at the intersection with a cross-cutting fault (Refer Figures 3 and 4). The surrounding geology including the crustal boundary has been disrupted for many kms by the intrusion.

The Cassowary Intrusion may represent a focus for long lived magmatic activity and a possible conduit for mineralising fluids and is a rare opportunity to explore a large target for IOCG type copper/gold deposits and potentially other types of intrusion related mineralisation.

<sup>&</sup>lt;sup>16</sup> Refer to Artemis ASX announcement on 28 April 2025



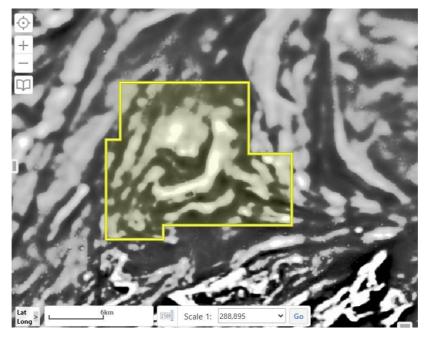
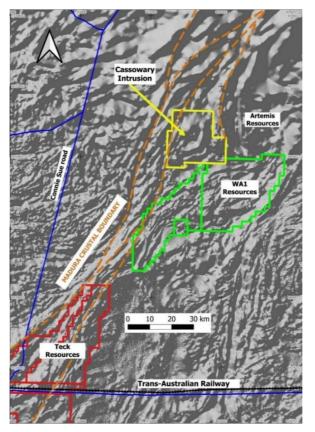


Figure 3: Magnetic image<sup>17</sup> of interpreted Cassowary Intrusion showing Artemis 330km<sup>2</sup> EL application (yellow)

IOCG type copper/gold mineralisation is also the main target announced by adjacent tenement applicant and a leading Niobium company WA1 Resources Limited (ASX: WA1)<sup>18</sup>. IOCG type mineralisation may also be the target for global copper company Teck Resources (NYSE: TECK), approximately 60km south along the same belt (Refer Figure 4).



**Figure 4**: **Magnetic image of Madura Crustal Boundary** showing interpreted Cassowary Intrusion, Artemis EL application (yellow), WA1 Resources EL applications (green) and Teck Resources EL applications (red).

<sup>&</sup>lt;sup>18</sup> Refer to WA1 Resources announcement on 28 April 2025



<sup>&</sup>lt;sup>17</sup> Source of magnetic image: GSWA Geoview

#### This announcement was approved for release by the Board

#### For further information:

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#### **Competent Person Statement**

The information in this report that relates to Exploration Results was compiled by Mr Julian Hanna, a Competent Person who is a member of the Australasian Institute of Mining and Metallurgy (MAusIMM). Mr Hanna is Managing Director of Artemis Resources 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". Mr Hanna consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

#### **No New Information**

To the extent that this announcement contains references to prior exploration results which have been cross referenced to previous market announcements made by the Company, unless explicitly stated, no new information is contained. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed.

#### **Caution regarding Forward Looking Information**

This document contains forward looking statements concerning Artemis Resources Limited. Forward looking statements are not statements of historical fact and actual events and results may differ materially from those described in the forward-looking statements as a result of a variety of risks, uncertainties and other factors. Forward looking statements in this document are based on Artemis' beliefs, opinions and estimates as of the dates the forward-looking statements are made, and no obligation is assumed to update forward looking statements if these beliefs, opinions or estimates should change or to reflect other future developments.



# **About Artemis Resources**

Artemis is a gold, copper and lithium focused resource company with a highly attractive suite of projects in Western Australia's underexplored North Pilbara Gold Province and a large copper/gold exploration target below the Eucla Basin 450km east of Kalgoorlie in Western Australia.

- Attractive projects:
  - Gold/Copper Karratha Gold Project (100%) multiple prospects incl: Carlow, Titan, Marillion, Europa
  - $\circ \quad \text{Copper/Gold} \text{Cassowary Intrusion Exploration Project} \text{large IOCG type target}$
  - Paterson Gold/Copper Project adjacent to Havieron Mine (owned Greatland Gold)
  - Lithium Artemis/Greentech Lithium JV: Mt Marie, Kobe, Osborne.
- **Highly strategic location:** Tier 1 jurisdiction, close to major hub at Karratha including regional rail and road infrastructure, administrative centre and Dampier Port.
- Significant exploration upside: highly prospective tenure package in the Pilbara Region of Western Australia which is a rapidly emerging gold province dominated by >12Moz Au Hemi Project.
- **Mineral Resource with growth potential:** existing high-grade gold-copper-cobalt Inferred Mineral Resource at Carlow (100%-owned tenure).
- Established processing site at Radio Hill: strategically located, fully permitted.
- **IOCG Exploration Target:** Artemis has applied for a 330km<sup>2</sup> exploration licence 450km east of Kalgoorlie covering a large interpreted magnetic intrusion considered to be prospective for IOCG type copper/gold mineralisation.

