

10 October 2024

## TITAN DELIVERS FURTHER HIGH-GRADE ROCK CHIP RESULTS SURFACE SAMPLING ASSAYS EXCEED 55% GOLD, 1,000 G/T SILVER EMERGENCE OF BROAD MINERALISED AREA OVER TITAN PROSPECT

### Highlights:

- Recent rock chip sampling at Titan delivers further **high-grade gold** from assays, and newly discovered silver including:
  - **553,754 g/t Au & 1,305 g/t Ag (24AR19-075)**
  - **223,056 g/t Au & 1,195 g/t Ag (24AR19-068)**
  - **33,389 g/t Au & 233 g/t Ag (24AR19-061)**
  - **7.5 g/t Au (24AR19-032)**
  - **5.7 g/t Au (24AR19-047)**
  - **1.2 g/t Au (24AR19-040)**
  - **2.0 g/t Au (24AR19-030)**
- Emerging broad prospective area covering **>63ha** and considered to remain open pending further exploration
- Previous reported over-limit and high-grade assays have now been quantified by the laboratory and returned assay results as follows;
  - **692,579 g/t Au & 3,000 g/t Ag (24AR11-005)**
  - **471,937 g/t Au & 1,775 g/t Ag (24AR11-008)**
  - **45,103 g/t Au & 344 g/t Ag (24AR11-004)**
  - **7,440 g/t Au & 212 g/t Ag (24AR11-002)**

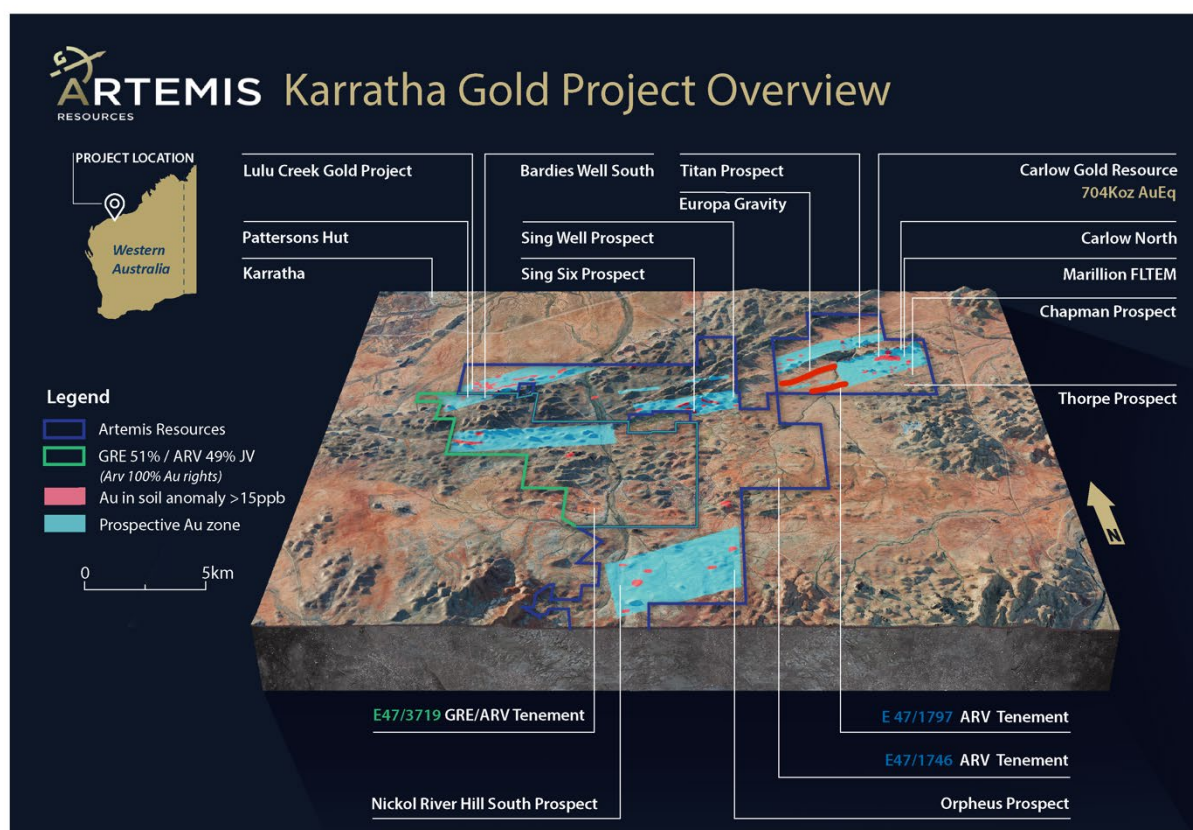
**Artemis Resources Limited** ('Artemis' or the 'Company') (ASX/AIM: **ARV**) is pleased to announce ground reconnaissance at the Titan prospect in the West Pilbara region of Western Australia continues to deliver **high grade gold and silver** from assays, highlighting the emergence of a broad mineralised area over the prospect.

**Executive Director George Ventouras** commented: *"It is pleasing to see further high-grade rock chip assays being recorded at the Titan prospect, together with confirmation of the extent of gold in previous sampling. These results, together with the previously reported gold, silver and copper results, point to the Carlow tenement being a highly prospective region with the potential for a larger scale gold system."*

*These high-grade gold assays continue the trend found in our original rock chip discoveries at Titan<sup>1</sup> by emerging from quartz-iron veining and are therefore not analogous to conglomerate mineralisation. This veining structure will vary throughout Titan but the structure continues to demonstrate its potential. We are looking forward to further gold exploration at Titan and over the greater Carlow tenement."*

## Titan Prospect

The Titan prospect is located towards the northern part of the Carlow tenement E47/1797, in the West Pilbara region of Western Australia. Titan has had minimal exploration work conducted previously other than broad spaced soil sampling and a constrained moving loop transient electromagnetic survey (MLTEM).



**Figure 1.** Artemis West Pilbara tenements with current known prospects named

The Company has followed up the preliminary ground reconnaissance undertaken in August 2024 with a second phase of sampling. This second phase has confirmed the previously reported over-limit assay results and also identified further potential mineralised areas through the discovery of additional high grade, previously untested

<sup>1</sup> Refer to ASX Announcements dated: 15, 16 August & 17 September

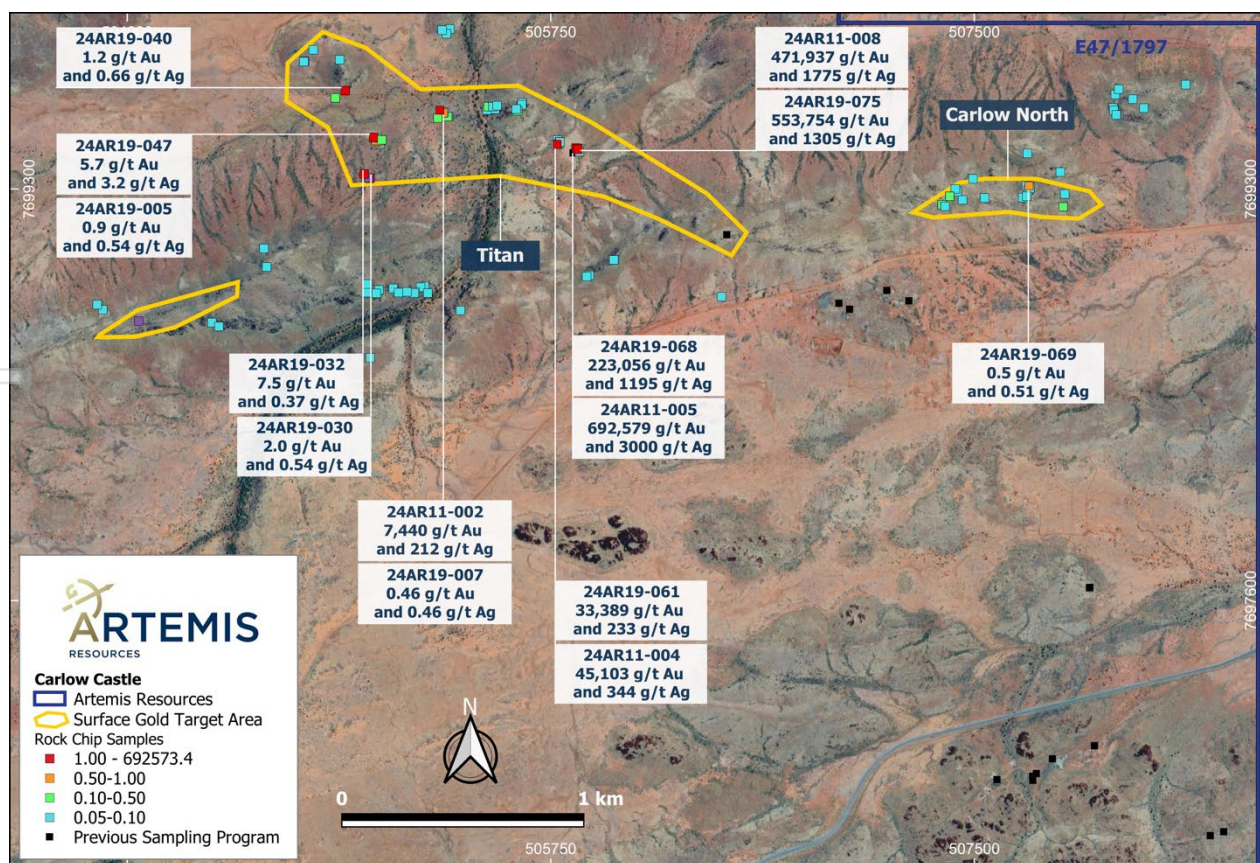
quartz/iron-oxide veins. In total, 97 samples were collected and sent to the laboratory for processing. The majority of samples were collected from in-situ veining with some sub-crop and three float samples.

Significant rock chip assay results (>0.5g/t Au), which included seven high grade results, from this second phase program included the following:

Sample_No	Easting	Northing	Au g/t	Cu %	Ag g/t	Co ppm	Zn %
24AR19-075*	505863	7699466	553,754.92	0.023	1,305	37.3	0.010
24AR19-068*	505860	7699470	223,056.72	0.022	1,195	70.3	0.012
24AR19-061*	505855	7699471	33,389.85	0.015	233	76.2	0.008
24AR19-032	504980	7699364	7.48	0.007	0.37	16	0.009
24AR19-047	505019	7699515	5.72	0.003	3.2	3.4	0.001
24AR19-030	505004	7699346	1.97	0.016	0.54	27.3	0.019
24AR19-040	504902	7699708	1.19	0.008	0.66	46.7	0.034
24AR19-005	505029	7699502	0.85	0.004	0.54	3.8	0.004
24AR19-007	505305	7699616	0.55	0.005	0.46	6.9	0.012
24AR19-069	507728	7699313	0.54	0.005	0.51	1.1	0.001

**Table 1.** Significant rock chip assay results from recent sampling

\* Assay results for Au from FA with gravimetric finish, reported as the average of triplicates.

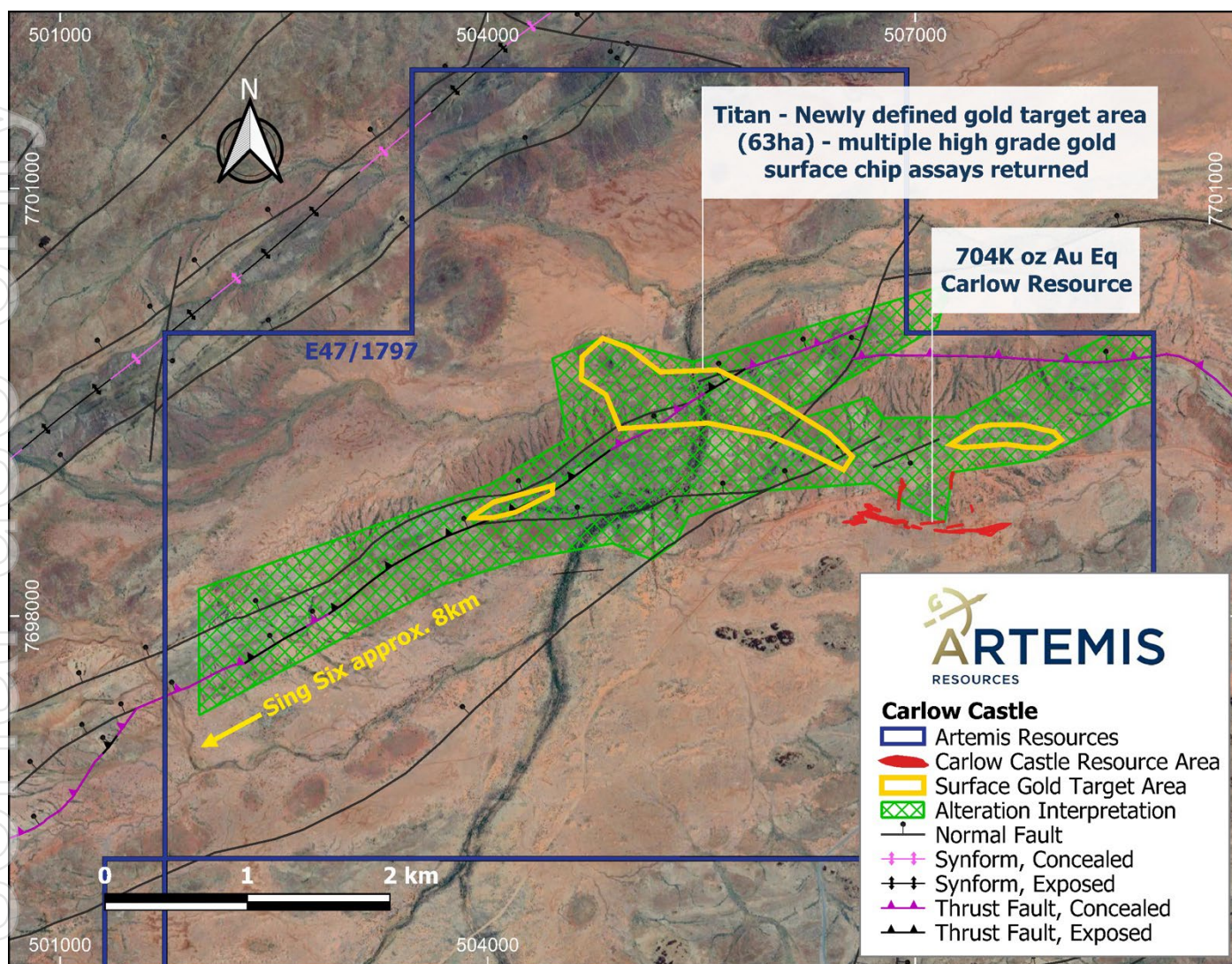


Recent field work and rock chip sampling across the Carlow tenement area has revealed several locations of mineralised quartz-iron oxide veining which occur in **three defined target areas**, the largest centred around Titan covering approximately **63ha**. Multiple vein orientations have been observed and are broadly consistent with the regional prospective Regal thrust structural framework. These thrust faults also extend for many tens of kilometres beyond the Titan prospect and across other Artemis prospects including Sing Six.

Vein composition at Titan is primarily quartz-iron oxide forming irregular banding with multiple samples displaying **visible gold**. Veins are predominantly steeply dipping and often range from single 1cm veinlets to 50cm and may occur as multiple sets across zones 1-5m wide with host rock. Vein outcrops are limited and trend for multiple meters and appear concealed by shallow surficial cover with projected trends based on geochemical and structural interpretations. Intense silica alteration with stockwork stringer veining, and lesser chlorite/sericite is observed across major shear zone structures, often forming positive relief features across Titan. This alteration may be highlighting the wider envelope of the potential mineralisation system.

The reported high-grade gold assays (**>10,000 g/t Au**) provide strong support for the potential of the Titan prospect area. It must be noted that sampling additional vein material close to high-grade gold samples may return contrasting results. Variable distribution of high-grade gold assays is typical of many gold bearing veins.

Importantly, the distribution of significant surface rock chip gold assays (>0.5g/t Au) across a broad area at Titan (potentially up to **2km x 400m**) and across differing structural trends presents considerable interest to the Company and could suggest a larger mineralised system than previously thought. This emerging and newly defined gold target area at Titan remains open pending further exploration.



**Figure 3.** Three newly interpreted surface gold target zones (in yellow) based on limited rock chip sampling across the Titan prospect area. 704Koz Au Eq Carlow Resource (in red) located ~1km south-east of Titan prospect.

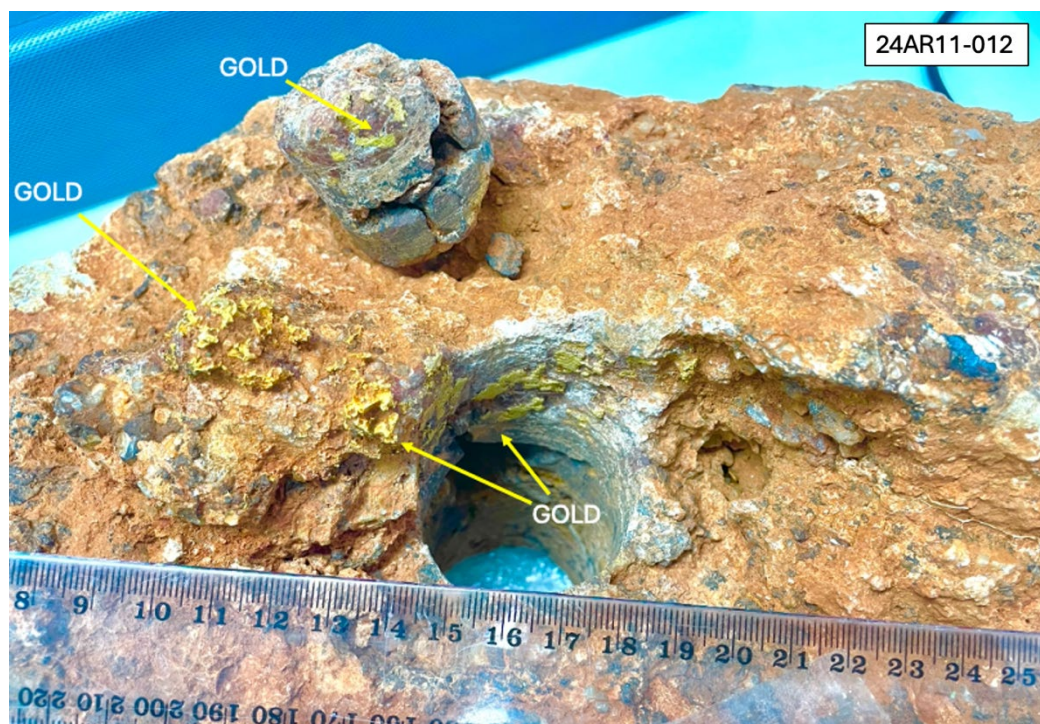
Artemis undertook preliminary rock chip sampling over the Titan prospect with initial results reported on 15 and 16 August 2024. Due to the high gold content of some of the samples, the analytical laboratory was unable to quantify the actual value of gold and provided a written report to state that several samples had exceeded the laboratory's gold assay limit, which was 10,000 g/t Au.

These over-limit samples were then provided to a second laboratory that specialises in high grade material and the samples were subsequently able to be quantified. These over-limit assays have now been quantified by the second laboratory and returned assay results (which are presented in Table 2) as follows;

- **692,579 g/t Au & 3,000 g/t Ag (24AR11-005)**
- **471,937 g/t Au & 1,775 g/t Ag (24AR11-008)**
- **45,103 g/t Au & 344 g/t Ag (24AR11-004)**
- **7,440 g/t Au & 212 g/t Ag (24AR11-002)**

**Note** - With respect to the high-grade gold assay rock chip results, these samples were selectively sampled from in-situ veining comprising quartz iron oxide and visible gold. The majority of rock chip sampling of veining was opportunistic in nature to better understand the potential higher-grade distribution of the target area currently being evaluated and to formulate a hypothesis as to the potential for a larger mineralised system.

These surface rock chip assay results provide early-stage confirmation that the Titan prospect has the potential hallmarks of a high-grade gold system of significant scale.



**Figure 4.** Sample 24AR11-012 taken from the Titan prospect displaying high gold content

Sample ID	Location		Weight gm	Visual Gold Estimate (%)	Vein Type (major minerals)
	mN	mE			
24AR11-012	505863	7699466	10000	5	Qz-Fe Vein + calcrete (fragmental)

*Cautionary statement: Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations. A number of vein rock chip samples were selected based on presence of visible gold during the sampling programs. The high-grade gold results reflect the irregular nature of the gold mineralisation. It should be noted that further sampling in close proximity to these high-grade zones may produce varying and very contrasting results. Some vein samples presented in diagrams may not have been analysed by a laboratory as the Company has chosen to keep them for type specimens.*



**Figure 5.** Visible gold in smoky quartz with minor iron oxide vein material located at Titan prospect

Sample ID	Location		Weight gm	Visual Gold Estimate (%)	Vein Type (major minerals)
	mN	mE			
24AR11-014	505863	7699466	68	20	Smoky Qz vein (minor iron oxide)

*Cautionary statement: Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations. A number of vein rock chip samples were selected based on presence of visible gold during the sampling programs. The high-grade gold results reflect the irregular nature of the gold mineralisation. It should be noted that further sampling in close proximity to these high-grade zones may produce varying and very contrasting results. Some vein samples presented in diagrams may not have been analysed by a laboratory as the Company has chosen to keep them for type specimens.*



**Figure 6.** Visible gold in iron oxide quartz vein material located at Titan prospect

Sample ID	Location		Weight gm	Visual Gold Estimate (%)	Vein Type (major minerals)
	mN	mE			
Duplicate of 24AR19-068	505860	7699470	157	10	Iron oxide-quartz

*Cautionary statement: Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations. A number of vein rock chip samples were selected based on presence of visible gold during the sampling programs. The high-grade gold results reflect the irregular nature of the gold mineralisation. It should be noted that further sampling in close proximity to these high-grade zones may produce varying and very contrasting results. Some vein samples presented in diagrams may not have been analysed by a laboratory as the Company has chosen to keep them for type specimens.*

## Next Steps

The exploration team will continue to undertake work on the Carlow tenement with a focus on detailed mapping of the visually identified structures to assist in interpreting the possible extent of potential mineralisation.

Reprocessing and interpretation of historical airborne geophysical data is also currently being undertaken to potentially outline what may underpin the surface expression of mineralisation across the Carlow tenement, with the focus on the Carlow Resource, Titan and Europa prospects. This work may be extended across other areas if initial results are deemed positive.

Sample_No	Easting	Northing	kg0.02	GRAV_Assay 1_Au%*	GRAV_Assay 2_Au%*	GRAV_Assay 3_Au%*	Average Au %*	Au g/t	Ag g/t
**24AR11-005	505860	7699470	0.17	68.90	70.74	68.13	69.26	692,579.5	3,000
24AR19-075	505863	7699466	0.27	55.43	54.92	55.77	55.38	553,754.9	1,305
**24AR11-008	505863	7699466	0.15	49.95	44.98	46.65	47.19	471,937.8	1,775
24AR19-068	505860	7699470	0.30	22.41	22.00	22.50	22.31	223,056.7	1,195
**24AR11-004	505855	7699471	0.32	4.48	4.49	4.56	4.51	45,103.7	344
24AR19-061	505855	7699471	0.27	3.10	3.15	3.77	3.34	33,389.9	233
**24AR11-002	505852	7699473	0.37	0.74	0.74	0.75	0.74	7,440.0	212
24AR19-032	504980	7699364	0.89					7.5	0.37
24AR19-047	505019	7699515	1.32					5.7	3.2
24AR19-030	505004	7699346	0.76					2.0	0.54
24AR19-040	504902	7699708	1.96					1.2	0.66
24AR19-005	505029	7699502	0.77					0.9	0.54
24AR19-007	505305	7699616	0.57					0.6	0.46
***24AR19-069	507728	7699313	2.13					0.5	0.51

**Table 2.** Significant (>0.5g/t Au) gold results from rock chip samples collected at the Titan prospect and include results previously reported as over limit (ie > 10,000g/t Au - refer ASX announcement 16<sup>th</sup> August 2024).

\*GRAV 1, GRAV 2 and GRAV 3 assays represent gravimetric finish with samples assayed in triplicate and reported in average % and also g/t for Au and Ag

\*\*Samples reanalysed and or originally reported as over limited > 10,000g/t Au (refer ASX announcement 16<sup>th</sup> August 2024). IAL reports Au assay in percent. These have been calculated to gram per tonne (g/t = %value x 10,000)

\*\*\*Sample 24AR19-069 was taken from the Carlow North prospect; all other samples are from the Titan prospect.

\*\*\*\* Samples taken in datum GDA94Z50

This announcement was approved for release by the Board.

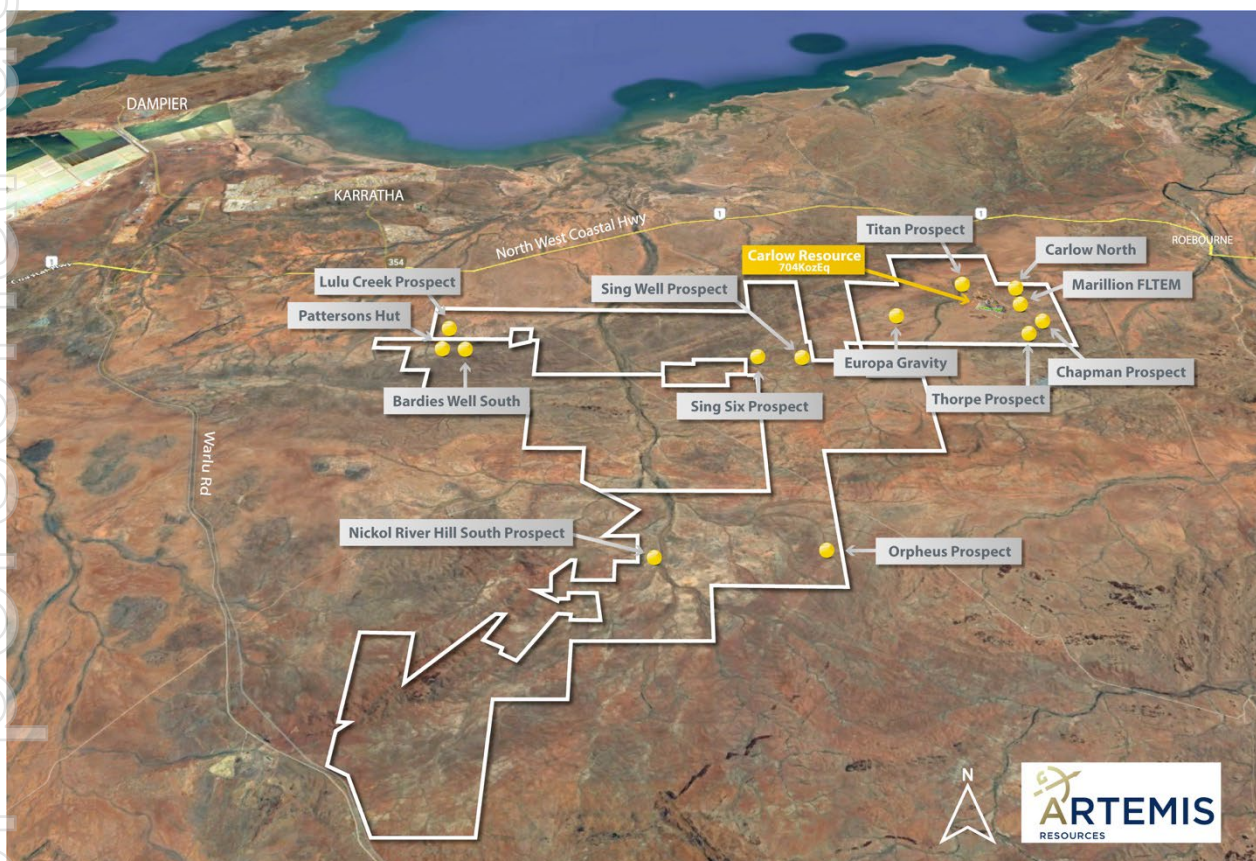
For further information contact Mr George Ventouras / Executive Director

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## About Artemis Resources

Artemis Resources (ASX/AIM: ARV; FRA: ATY; US: ARTTF) is a gold, copper and lithium focused resources company with projects in Western Australia. The Company's main projects include;

- Karratha Gold Project including the Carlow Castle 704 Koz AuEq gold-copper-cobalt project in the West Pilbara (refer appendix 2).
- Karratha Lithium Project including the high-grade Mt Marie Lithium Prospect and the Osborne Lithium JV (Artemis 49%; GreenTech Metals (ASX:GRE 51%)
- Paterson Central Gold/Copper project in the Paterson Province (located adjacent to Greatland Gold / Newmont's recent gold-copper discovery at Havieron and only ~42km from the Newmont Telfer gold mine)
- Artemis also owns the Radio Hill processing plant, located only 35km from Karratha



Artemis is focused on discovering multiple gold prospects within its +200km<sup>2</sup> tenement package that can build upon the initial Mineral Resource at Carlow. The majority of the tenement package has been lightly explored and is now the subject of methodical exploration programs with a view to identify all gold zones, veins, structures and faults.

The Company will also continue to progress the Karratha Lithium project including the high-grade Mt Marie prospect and will look to advance this exciting project through further field work which will lead to drilling the most advanced targets in due course.

**Competent Person Statement**

The information in this report that relates to Exploration Results was prepared/compiled by Mr Adrian Hell BSc (Hons), a Competent Person who is a member of the Australasian Institute of Mining and Metallurgy (MAusIMM). Mr Hell is a technical consultant to Artemis Resources Ltd. Mr Hell 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 Hell consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Mineral Resources complies with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("The JORC Code") and has been compiled and assessed under the supervision of Ms Janice Graham MAusIMM (CPGeo) MAIG and Dr Simon Dominy FAusIMM(CPGeo) FAIG(RPGeo) FGS(CGeol). Ms Graham Dr Dominy are employees of Snowden Optiro. Ms Graham and Dr Dominy have sufficient experience relevant to the styles of mineralisation and type of deposits under consideration and to the activity being undertaken to individually qualify as a Competent Person as defined in The JORC Code. Ms Graham and Dr Dominy consent to the inclusion in the report of the matters based on this 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 and Mineral Resource Estimates for the Carlow Gold/Copper Project 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.

**ASX announcements referred to in this release;**

Artemis Resources, Titan Prospect Results – Clarification Statement, 17 September 2024

Artemis Resources, High Grade Gold Vein Discovery at Titan Prospect Amended, 16 August 2024

Artemis Resources, High Grade Gold Vein Discovery at Titan Prospect, 15 August 2024

Artemis Resources, High Grade Gold Copper Cobalt Inferred Mineral Resource lays foundation for a robust Greater Carlow Project, 13 October 2022

Artemis Resources, Copper and Nickel; Occurrence at Chapman Prospect, 6 November 2021

## Appendix 1 - Rock chip sample assay results

Sample_No	Easting	Northing	FA_GRAV_ avg_Au %	50g_FA_Au g/t	Cu %	Ag ppm	Co ppm	Zn %
24AR19-001	505301	7699601		0.12	0.001	0.25	8.2	0.017
24AR19-002	505329	7699601		0.05	0.008	0.96	5.2	0.021
24AR19-003	505325	7699601		0.11	0.007	0.13	5	0.009
24AR19-004	505309	7699619		0.02	0.017	0.17	28.1	0.040
24AR19-005	505029	7699502		0.85	0.004	0.54	3.8	0.004
24AR19-006	505034	7699512		0.19	0.008	0.61	9.7	0.009
24AR19-007	505305	7699616		0.55	0.005	0.46	6.9	0.012
24AR19-008	505633	7699658		0.09	0.004	0.63	26.4	0.026
24AR19-009	505629	7699646		0.02	0.020	0.88	28.7	0.021
24AR19-010	505631	7699650		0.01	0.008	0.22	4.8	0.005
24AR19-011	505614	7699625		0.17	0.031	0.38	7.5	0.014
24AR19-012	505608	7699632		0.03	0.031	0.54	6.1	0.011
24AR19-013	505521	7699631		0.01	0.058	0.09	73.6	0.070
24AR19-014	505487	7699628		0.01	0.008	0.08	29.9	0.066
24AR19-015	505334	7699963		0.02	0.009	0.35	8.1	0.003
24AR19-016	507367	7699236		0.23	0.033	1.4	17.5	0.007
24AR19-017	507495	7699344		0.02	0.005	0.33	2.2	0.003
24AR19-018	507543	7699265		0.03	0.028	0.23	7.9	0.009
24AR19-019	506014	7699009		0.02	0.002	0.19	3.3	0.003
24AR19-020	506011	7699009		0.02	0.004	0.4	14	0.126
24AR19-021	505910	7698945		0.02	0.022	0.31	48	0.103
24AR19-022	505899	7698940		0.02	0.004	0.1	6	0.009
24AR19-023	505378	7698800		0.01	0.012	0.37	8.2	0.014
24AR19-024	505005	7698605		0.01	0.012	0.24	20	0.031
24AR19-025	505041	7698885		0.03	0.002	0.23	4.9	0.005
24AR19-026	504992	7698874		0.01	0.002	0.07	4.7	0.004
24AR19-027	504994	7698909		0.01	0.001	0.09	5.3	0.010
24AR19-028	505030	7698871		0.05	0.006	0.24	6.2	0.006
24AR19-029	506456	7698857		0.02	0.092	0.33	39	0.035
24AR19-030	505004	7699346		1.97	0.016	0.54	27.3	0.019
24AR19-031	504999	7699348		0.11	0.009	0.28	11.3	0.005
24AR19-032	504980	7699364		7.48	0.007	0.37	16	0.009
24AR19-033	504566	7699056		0.02	0.002	0.03	3.4	0.005
24AR19-034	504577	7698980		0.01	0.0005	0.02	2.5	0.001
24AR19-035	504049	7698756		0.18	0.012	0.18	9.3	0.012
24AR19-036	504351	7698750		0.01	0.002	0.11	3.1	0.007
24AR19-037	504380	7698734		0.01	0.005	0.08	46	0.010
24AR19-038	504879	7699836		0.1	0.030	0.52	21.5	0.015
24AR19-039	504770	7699877		0.005	0.002	0.11	1	0.0003
24AR19-040	504902	7699708		1.19	0.008	0.66	46.7	0.034
24AR19-041	504861	7699678		0.36	0.003	0.12	5	0.002
24AR19-042	504734	7699830		0.23	0.006	0.15	20.5	0.004
24AR19-043	504731	7699828		0.03	0.004	0.17	12	0.003
24AR19-044	505320	7699943		0.03	0.009	0.19	3.1	0.003
24AR19-045	505302	7699958		0.02	0.033	0.08	11.6	0.004
24AR19-046	505284	7699595		0.29	0.001	0.2	2.5	0.004
24AR19-047	505019	7699515		5.72	0.003	3.2	3.4	0.001
24AR19-048	505053	7699505		0.43	0.001	0.15	2	0.002
24AR19-049	503900	7698803		0.02	0.001	0.06	14.5	0.005

Sample_No	Easting	Northing	FA_GRAV_ avg_Au %	50g_FA_Au g/t	Cu %	Ag ppm	Co ppm	Zn %
24AR19-050	503877	7698824		0.01	0.0004	0.01	9.2	0.003
24AR19-051	505492	7699642		0.42	0.002	0.29	7.9	0.015
24AR19-052	505512	7699642		0.09	0.003	0.13	25.8	0.039
24AR19-053	505529	7699646		0.005	0.013	0.07	142.5	0.090
24AR19-054	505869	7699469		0.03	0.006	0.02	27.7	0.005
24AR19-055	505869	7699456		0.01	0.006	0.03	28.3	0.003
24AR19-056	507452	7699257		0.02	0.009	0.03	3.6	0.011
24AR19-057	507429	7699291		0.01	0.006	0.07	3.7	0.013
24AR19-058	507422	7699302		0.01	0.009	0.04	5.2	0.014
24AR19-059	507399	7699272		0.21	0.008	0.19	3.4	0.007
24AR19-060	507380	7699230		0.01	0.016	0.32	7.2	0.013
24AR19-061*	505855	7699471	3.34	33390	0.015	233	76.2	0.008
24AR19-062	507874	7699281		0.03	0.002	0.1	1	0.001
24AR19-063	505229	7698900		0.005	0.002	0.21	2.4	0.002
24AR19-064	505213	7698896		0.05	0.004	0.53	2.5	0.005
24AR19-065	507720	7699449		0.005	0.019	0.4	5.2	0.008
24AR19-066	507716	7699316		0.01	0.005	0.22	1	0.0004
24AR19-067	507728	7699313		0.15	0.013	0.52	6.1	0.013
24AR19-068*	505860	7699470	22.31	223057	0.022	1195	70.3	0.012
24AR19-069	507728	7699313		0.54	0.005	0.51	1.1	0.001
24AR19-070	507726	7699299		0.13	0.018	1.19	7.7	0.007
24AR19-071	507723	7699296		0.02	0.006	0.14	3.1	0.002
24AR19-072	507730	7699304		0.02	0.001	0.12	0.6	0.001
24AR19-073	507701	7699266		0.04	0.032	0.88	18.2	0.075
24AR19-074	507717	7699272		0.01	0.005	0.06	1.4	0.001
24AR19-075*	505863	7699466	55.38	553755	0.023	1305	37.3	0.010
24AR19-076	507868	7699228		0.12	0.002	0.23	1.3	0.004
24AR19-077	507856	7699372		0.005	0.039	0.09	14.6	0.068
24AR19-078	505243	7698872		0.02	0.005	0.45	7.6	0.017
24AR19-079	505779	7699504		0.01	0.034	0.05	55.3	0.055
24AR19-080	505783	7699487		0.01	0.022	0.03	63.3	0.018
24AR19-081	505787	7699491		0.005	0.018	0.02	57	0.019
24AR19-082	505788	7699497		0.07	0.016	0.04	61	0.021
24AR19-083	505789	7699496		0.005	0.026	0.02	54	0.024
24AR19-084	505772	7699485		0.005	0.021	0.06	89.8	0.017
24AR19-085	508074	7699637		0.01	0.011	0.12	14.1	0.018
24AR19-086	508077	7699627		0.02	0.002	0.21	3.1	0.013
24AR19-087	508087	7699608		0.005	0.005	0.24	2.3	0.004
24AR19-088	508374	7699733		0.01	0.008	0.2	113.5	0.095
24AR19-089	505100	7698891		0.01	0.001	0.02	2.2	0.003
24AR19-090	505122	7698874		0.01	0.001	0.1	1.7	0.002
24AR19-091	508083	7699692		0.005	0.008	0.31	4.1	0.008
24AR19-092	508097	7699714		0.01	0.003	0.26	2.8	0.005
24AR19-093	508155	7699673		0.01	0.001	0.04	1.7	0.002
24AR19-094	508201	7699636		0.005	0.005	0.07	2.1	0.007
24AR19-095	505190	7698876		0.005	0.004	0.14	15	0.016
24AR19-096	505186	7698872		0.005	0.002	0.38	5.3	0.006
24AR19-097	505157	7698877		0.03	0.006	0.13	14.5	0.016

**Table 3.** Assay results for all rock chip samples (97) from recent reconnaissance - 24AR19.

\* Assay results for Au from FA with gravimetric finish, reported as the average of triplicates.

## Appendix 2 Mineral Resource Estimate

Greater Carlow Mineral Resource by weathering state<sup>1,2,3</sup>

Domain	Tonnes (Mt)	AuEq (g/t)	Au (g/t)	Cu (%)	Co (%)	Au (oz)	Cu (t)	Co (t)
Oxide	1.29	1.5	0.8	0.59	0.07	34,000	8,000	1,000
Transition	1.49	2.0	1.2	0.84	0.09	56,000	13,000	1,000
Fresh	5.96	2.8	1.5	0.73	0.10	285,000	44,000	6,000
<b>Total</b>	<b>8.74</b>	<b>2.5</b>	<b>1.3</b>	<b>0.73</b>	<b>0.09</b>	<b>374,000</b>	<b>64,000</b>	<b>8,000</b>

Greater Carlow Mineral Resource by area above a cut-off of 0.7g/t AuEq<sup>1,3</sup>

Domain	Tonnes (Mt)	AuEq (g/t)	Au (g/t)	Cu (%)	Co (%)	Au (oz)	Cu (t)	Co (t)
Main	6.33	2.4	1.3	0.70	0.08	271,000	44,300	5,100
Quod Est	0.19	3.2	1.5	0.85	0.24	9,000	1,600	450
Crosscut	0.73	2.2	0.7	0.99	0.09	16,000	7,300	650
<b>Total</b>	<b>7.25</b>	<b>2.4</b>	<b>1.3</b>	<b>0.73</b>	<b>0.09</b>	<b>296,000</b>	<b>53,200</b>	<b>6,200</b>

Greater Carlow Mineral Resource by area above a cut-off of 2.0g/t AuEq<sup>2,3</sup>

Domain	Tonnes (Mt)	AuEq (g/t)	Au (g/t)	Cu (%)	Co (%)	Au (oz)	Cu (t)	Co (t)
Main	1.09	3.1	1.9	0.57	0.11	66,000	6,250	1,200
Crosscut	0.39	3.1	1.0	1.14	0.14	12,500	5,560	550
<b>Total</b>	<b>1.49</b>	<b>3.1</b>	<b>1.6</b>	<b>0.72</b>	<b>0.12</b>	<b>78,500</b>	<b>10,700</b>	<b>1,750</b>

### Gold Equivalent formula

The gold equivalent formula used in the calculation of an Au Eq grade uses the following parameters:  
It is the Competent Persons' view that all elements contributing to the gold equivalent calculation have the potential to be extracted and sold.

<b>Oxide</b>	<b>Au Eq. equation = Au (g/t) + Cu(%) x 0.86 + Co(%) x 2.31</b>
<b>Transitional</b>	<b>Au Eq equation = Au (g/t) + Cu(%) x 0.81 + Co(%) x 2.17</b>
<b>Fresh</b>	<b>Au Eq equation = Au (g/t) + Cu(%) x 1.31 + Co(%) x 3.96</b>

Significant inputs to the Mineral Resource

Parameter	Input value
Overall slope angles	Oxide 40°, Transition 45°, Fresh 50°
Processing cost	A\$50/t
Gold recoveries	Oxide 96%, Transitional 93.5%, Fresh 93%
Copper recoveries	Oxide 61%, Transitional 56%, Fresh 90.5%
Cobalt recoveries	Oxide 47%, Transitional 43%, Fresh 78%
Mining costs	A\$2.70/t + 0.5c/t per m below 30mRL, thereafter add Transitional A\$0.25/t and Fresh A\$0.50/t. OP strip ratio 12:1
NSRs (incl. payability, royalty and treatment and refining costs)	Gold: 94%, Copper 84%, Cobalt 41%
Gold price	A\$2,600/oz
Copper price	A\$12,699/t
Cobalt price	A\$90,478/t
Au royalty (in dore)	2.5%
Au royalty (in concentrate)	5%
Cu royalty	5%
Co royalty	5%

- 1 Reported above a cut-off of 0.7g/t AuEq within an optimised pit shell (current as at 13 October 2022).
- 2 Reported above a cut-off of 2.0g/t AuEq for underground using MSO shapes (current as at 13 October 2022).
- 3 The Resource is classified as an Inferred Mineral Resource in accordance with the JORC Code, 2012. All tonnes are dry metric tonnes. Figures may not compute due to rounding.

## Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li><i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i></li> <li><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li><i>In cases where ‘industry standard’ work has been done this would be relatively simple (eg ‘reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay’). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i></li> </ul>	<ul style="list-style-type: none"> <li>Samples referred to in this report are obtained from random in-situ rock chip samples collected by Artemis Resources during field reconnaissance exercises. Some sampling across sub crop and 3 samples from float. Rock chips containing visible gold have been selectively sampled from in-situ veining.</li> <li>Rock chip sample weight varies between 0.15kg to 4.14kg, average weight of samples is 1.2kg</li> <li>Some samples have similar coordinates as they have been collected adjacent to one another or below at depth. These samples can be treated as duplicates</li> <li>The rock chip samples of the veins are irregularly spaced which is considered appropriate for “regional-scale” reconnaissance-level gold exploration.</li> <li>Rock chips are random, subject to bias and often unrepresentative for the typical widths and assay grades required for economic consideration. They are by nature difficult to duplicate with any acceptable form of precision or accuracy.</li> <li>In some instances, a small 4-tonne excavator was used to expose vein material for sampling.</li> <li>High iron oxide parts of the vein sampled vary in hardness &amp; friability and easily fragmented during sampling. Samples may comprise of combined many multiple fragments.</li> <li>Samples were dispatched to ALS Global Laboratories in Perth for analysis.</li> </ul>

- Analysis included:
  - Au-AA26 – Au 50g FA AA finish
  - Au-GRA22 – default overlimit method - 50g FA with Gravimetric finish; upper limit of the method 10,000ppm; ME-MS6148 element four acid digestion and ICP-MS finish.
  - Trigger default overlimit method also requested for Ag, Cu, and Zn
  - Au analysis turned off for samples 24AR11-004, 24AR11-005 & 24AR11-008 due to significant Au concentration which is unable to be processed in geochemical fire assay facility, likely >1%
  - A selection of vein samples which contained significant visible gold (field observation determination of approximately > 5% visible gold VG) or those that reached over limits values at ALS were subsequently analysed using gravimetric finish at Independent Assay Laboratories (IAL)
  - IAL gravimetric finish with respect to samples containing VG and reporting overlimit at ALS was as follows:
  - Nominal 50g of sample are taken from prepared pulps and mixed with various fluxes which are individually altered according to the mineral type to form the optimum silicate slag. Samples were so high in gold content that sample mass was reduced in order for the samples to be processed. Lead oxide is used to form droplets of lead metal which collect the gold in the sample by alloying as it falls through the molten slag. Silver is added as silver nitrate and is also collected as a silver/gold/lead alloy.

- The lead metal containing the gold and silver is oxidised in a muffle furnace to form lead oxide. This is absorbed into magnesium oxide cupels and the gold and silver, being more noble than the lead, remain as a metal alloy.
- Provided the silver present in the prill is three times that of gold the silver will dissolve in acid. The samples in question had a much higher gold to silver ratio so silver was added and re-processed to add more silver so that all the silver would dissolve (a process called “inquarting” or making the silver three times the amount of gold). The recovered gold and silver were so large the recovered metal was rolled into “cornets” to allow the acid to dissolve the silver. The silver was dissolved with nitric acid and the remaining gold was washed with distilled water to remove the silver nitrate and excess nitric acid. The gold was dried and toughened by annealing at 8000°C prior to weighing on a microbalance.
- The balance has a large dynamic range and is accurate over many orders of magnitude. The lowest weighable mass is 1 microgram (0.000001 g). The final cornets weighed between 700mg and 2 grams on the samples as assayed.
- The samples were assayed in triplicate and reported in % . Artemis convert % to g/t using the calculation :  $g/t = sample\%value \times 10,000$
- 

**Drilling techniques**

- *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of*

- Not applicable, as no drilling was undertaken.
- No mention is made in this announcement of exploration results including drilling conducted by other companies on nearby tenements.

	<i>diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i>	
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>• Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>• Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>• Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable as no drilling has been undertaken.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>• The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>• Logging of rock chips are collected using Fulcrum App which has been set up for project geology requirements. Data recorded includes GPS location, lithology, mineralisation, alteration, structure. All data is captured using field note pad – Samsung Active-3. The level of logging detail is sufficient for exploration reconnaissance purposes.</li> <li>• Alteration interpretation is preliminary and determined by field observation and correlated against World View 3 enhanced imagery. This work remains ongoing</li> <li>• Structural interpretation is preliminary and based on field limited structural recordings. This work remains ongoing.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>• If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>• If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>• For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>• Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> </ul>	<ul style="list-style-type: none"> <li>• No sub sampling of rock chip samples has been undertaken as part of this program.</li> </ul>

	<ul style="list-style-type: none"> <li>Measures taken to ensure that the sampling is representative of the insitu material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>Rock chip samples were dispatched to ALS Global Laboratories in Perth for analysis using their ME_MS61L (48 elements), and Au-AA26 (1 element) for 49 elements in total.</li> <li>The laboratory reported the use of standards and blanks as part of the analyses for QA/QC.</li> <li>No standards or blanks were submitted by the company.</li> <li>Samples with visible gold and reporting Au overlimit at ALS were processed at IAL using gravimetric finish [or other description to match the level of description of the analysis technique that we have provided for the ALS method].</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>Rock chip sample and geological information is recorded in the field with co-ordinates saved from in built tough book GPS and handheld GPS used in the field.</li> <li>All rock chip samples were inspected and described by Artemis geologists in the field.</li> <li>Field data is entered into Fulcrum App before being loaded into a database.</li> <li>All data has been maintained, validated, and managed by administrative geologist.</li> <li>Analytical results received from the lab have been loaded directly into the database with no manual transcription of these results undertaken,</li> <li>Original lab certificates have been stored electronically.</li> </ul>

		<ul style="list-style-type: none"> <li>Below detection limit data presented as 1/2 of the lower detection limit of the method and over the detection limit results presented as the upper detection limit of the method.</li> <li>A nominal 0.5g/t gold cutoff grade was applied for reporting of exploration in table 3. This cut off gold value is accepted as being a potential economical grade for a mining operation and as such forms the basis of being a significant result</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>Sample points were determined by in built tough book GPS and hand held GPS which is considered appropriate for the reconnaissance nature of the sampling.</li> <li>GPS error is approximately 1-5m for Easting &amp; Northing and up to 10m for elevation (m)</li> <li>All sample location coordinates are provided in the Geocentric Datum of Australia (GDA94 Zone 50).</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable due to the reconnaissance nature of the sampling.</li> <li>No attempt has been made to demonstrate geological or grade continuity between sample points.</li> <li>No sample compositing is applied to samples.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>Samples were collected from outcropping in situ veins. If visible gold in veining is observed this material have been selectively sampled. This sample material comprising quartz-iron oxides and visible gold likely reflects the nuggety nature of the mineralised system.</li> </ul>
<b>Sample</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Sample security is by way of chain of custody.</li> </ul>

**security**
**Audits  
or  
reviews**

- The results of any audits or reviews of sampling techniques and data.
- No review of the sampling techniques has been undertaken.

## Section 2 Reporting of Exploration Results - revised

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>• Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>• The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>• The project tenement covers an area of 126km<sup>2</sup> and comprises granted tenement: E47/1746</li> <li>• All Artemis Project tenures are 100% owned by Artemis Resources subsidiary company KML No 2 Pty Ltd E47/1746 &amp; E47/1797 with the exception of E47/3719 which is subject to a GreenTech Metals/Artemis Resources 51%/49% Joint Venture</li> <li>• The tenement is in good standing with DEMIRS and there are no known impediments for exploration on these tenements.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>• Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>• Previous explorers in the region include but not limited to are Westfield Minerals, Consolidated Gold Areas, Open Pit Mining and Exploration, Legend Mining, Agip Exploration, Titan Resources and Fox Resources.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>• Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>• Surface mineralisation is consistent with structure-controlled shear zone lodes in Archean low grade metamorphic and accretionary terrains. Implications for intrusion related mineralised systems is also being considered.</li> </ul>

<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>• A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>○ easting and northing of the drill hole collar</li> <li>○ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>○ dip and azimuth of the hole</li> <li>○ down hole length and interception depth</li> <li>○ hole length.</li> </ul> </li> <li>• If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable as no drilling has been undertaken</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>• Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>• The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable as no data aggregation has been used.</li> </ul>
<b>Relationship between mineralisation</b>	<ul style="list-style-type: none"> <li>• These relationships are particularly important in the reporting of Exploration Results.</li> <li>• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable as surface sampling is reconnaissance in nature.</li> </ul>

<b>widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>All the appropriate maps are provided in the body of this announcement.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>This announcement discusses the findings of recent reconnaissance sampling and associated assays.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul style="list-style-type: none"> <li>Previous Drilling completed by Artemis Resources, Legend Mining and Open Pit Mining Titan Prospect</li> <li>Limited historic work completed including 1 drill hole by Legend Mining Ltd for a total depth of 50m (GC19). This hole is located approximately 750m NE of the recently returned positive Au rock chips and Titan high-grade vein discovery. No assay data records have been located for this historic drill hole.</li> <li>Carlow Castle Prospect <ul style="list-style-type: none"> <li>Carlow Inferred Resource 704,000Au Eq @ 2.5g/t Au Eq from 8.74MT (refer to ASX announcement 13<sup>th</sup> Oct 2022 Drillhole data comprised 65,355 m, consisting of 58,261 m of RC and 7,094 m diamond holes. Chapman &amp; Thorpe Prospects (previously known as Good Luck and Little Fortune) Historical work completed by Open Pit Mining NL (between 1985 &amp; 1987) and Legend Mining NL.</li> </ul> </li> </ul>

- Work completed by Open Pit consisted of geological mapping, geophysical surveying (IP), and RC drilling and sampling.
- Work completed by Legend Mining Ltd consisted of geological mapping and further RC drilling.
- Total of 19 drill holes completed at Chapman prospect for a total 4,847.3m including 18 RC (4,673m) and 1 Diamond drill hole (174.3m) – best intercept included 10m @ 3.4% Cu & 1.75g/t Au from 116m (GLC007). Results are encouraging however considered preliminary in nature
- Total of 8 RC drill holes completed at Thorpe Prospect for a total of 2,017m – best intercept included 6m @ 0.85% Cu from 20m including 3.6% Cu & 2.33g/t Au from 23m (LFC007). (refer to ASX announcement 06 December 2021) Results are encouraging however considered preliminary in nature
- Lulu Prospect (previously known as Carlow West)
- Total of 126 RC drill holes completed at Lulu Prospect for a total of 3694m. Best intercepts include
  - 2m @ 1.63 g/t Au from 34m in CWRC006
  - 1m @ 4.89 g/t Au from 24m in CWRC011
  - 1m @ 1.15 g/t Au from 9m in CWRC017
 (refer to ASX announcement 18<sup>th</sup> September 2020). Results are encouraging however considered preliminary in nature

#### Sing Well – Sing Six Prospects

- Total of 14 RC drill holes completed for a total of 376m. Best intercept included 2m @ 0.97g/t Au from 9m (SSRC007) (refer to ASX announcement 18<sup>th</sup> September 2020)

- Geochemical sampling and geological mapping were completed by Artemis Resources and reported to the ASX on 5th November 2018.
  - Historic drilling completed by Legend Mining Ltd across Carlow Licence area (E47/1797)
  - 124 drill holes for a total of 3158m, 77 drill holes with assays.
- Validation & compilation of historic data is ongoing.

**Further work**

- *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*
- *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*
- Artemis Resources plans to conduct further ground reconnaissance and sampling in the short term to determine the surface extent both laterally and along strike. Geophysical reprocessing of historical data is being undertaken to determine what may underpin potential mineralisation in the Carlow licence area.