#### **ASX Announcement**



# Paterson Central Phase 1 Programme Update Apollo Drilling Hits Highly Encouraging Geology

## **Highlights**

ARTEMIS

Phase 1 of the Atlas and Apollo programme will now pause for the peak summer break. Rigs will recommence as soon as the peak summer season ends, typically at the end of February/early March.

Four holes have been completed to length of between 623m and 810m. A 5<sup>th</sup> hole on pad AP4 (GDRCD008) was lost at 240m depth still in Permian cover. It will be restarted in Q1 2022.

Hole GDRCD007 drilled from the Apollo, AP3 pad (Fig. 4) intersected several zones of particularly encouraging geology on the edge and within a ~84m interval of an altered diorite intrusion. This hole has been plugged at 804m and will be re- entered and pushed deeper.



*Figure 1: GDRCD007 - 547m, example of a large quartz-calcite vein in altered diorite with semi-massive sulphides pyrite ±Chalcopyrite as well as Chlorite, Actinolite infill.* 

Observations of GDRCD007 core reveal a high-temperature alteration suite of massive dolomitic marble at ~530m followed by intermittent/sporadic and in places very intense silica–calcite–chlorite–actinolite ±biotite with abundant pyrite and minor chalcopyrite in veins, halos and minor breccia infill over individual widths up to 0.5m between ~535m and ~560m downhole (Fig. 1, 2 and 3).



Figure 2: GDRCD007 - 559m, example of a quartz-calcite vein in altered diorite with pyrite± chalcopyrite, chlorite "Jigsaw" infill and minor brecciation.

**ARTEMIS RESOURCES** ASX:ARV FRA:ATY US:ARTTF www.artemisresources.com.au

Furthermore, in GDRCD007, zones of disseminated sulphides were observed within the matrix of the diorite intrusion itself. The extent of this intra-matrix sulphide mineralisation has yet to be measured as drill core needs to be cut and logged in detail first (Fig. 3).



Figure :3 GDRCD007 - 538m, example of quartz-calcite vein in altered diorite with abundant pyrite± chalcopyrite-chloriteactinolite infill. Close up example of disseminated inter-matrix sulphides in altered diorite.

Importantly, assays are required to determine that gold is present in these drill cores. Encouragingly the presence of altered diorite, a high-temperature alteration assemblage and high sulphide content of selected core zones encountered in GDRCD007 bear strong similarities to published examples of some host rock and vein-hosted mineralisation sub-types at the nearby multi-million ounce Havieron mine development.\*

Hole GDRCDD004 drilled from the AT1 ENE across the N-S Havieron fault/dyke. Samples from unusual "green granite" alteration zones encountered will be expedited for assay. The AT1 Pad will be utilised again in Q1 2022 (Fig. 4).

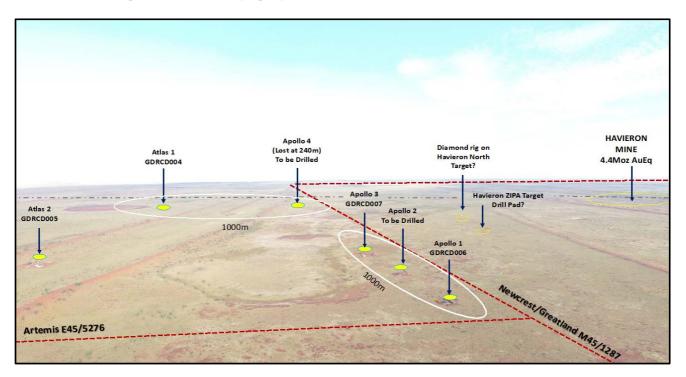


Figure 4: Drone photo schematic looking East – The Apollo and Atlas targets relative to Havieron and surrounding ZIPA and Havieron North targets drilled by the Newcrest/Greatland JV recently (all assays pending). Atlas and Apollo target drill footprints in yellow/white. Licence boundaries (dashed red) and interpreted major N-S fault (dashed grey). Havieron (blue).

All core has now arrived at the Radio Hill core handling facility to be cut and logged and samples dispatched for assay early in the New Year. Selected core intervals will be sent for priority assay.

\*source – Havieron Gold-Copper Deposit: Next Generation of Undercover Discoveries. NewGenGold2021.

**ARTEMIS RESOURCES** ASX:ARV FRA:ATY US:ARTTF www.artemisresources.com.au

ARTEMIS

Artemis Resources Limited ("Artemis" or "the Company") (ASX:ARV, Frankfurt: ATY, US OTCQB: ARTTF) is pleased to provide an update on drilling progress and field observations of diamond drill core at its 100%-owned Paterson Central Project in the Paterson Province region of Western Australia.

Alastair Clayton, Executive Director commented: "I am so pleased to be able to present to shareholders what has been achieved in such a short time by our team at the beginning of our exploration journey at Atlas and Apollo.

With drill pads between 300m and 2km apart, Havieron-sized orebodies could easily slip between our first-pass Phase 1 drill net which makes the update presented today even more satisfying.

Field observations of core, particularly from GDRCD007, are very encouraging. Altered diorite is reportedly one of the key host rocks present in the centre of the Havieron Mineral Resource. The high-temperature alteration suite, veins combined with significant sulphide mineralisation within this diorite also bears a striking resemblance to reported sub-types at the massive Havieron Au-Cu deposit nearby.

Clearly a priority task for Q1 2022 now involves following up on what we are seeing at Apollo.

Drilling to the centre of the Apollo gravity ridge, near pad AP2, to find larger intervals of and even more dense vein sets, halos and breccias in mineralised altered diorite and metasediments that may form the gravity anomaly itself will be undertaken. The Apollo gravity ridge is modelled to extend to the Newcrest/Greatland JV "ZIPA" target reported recently to be drilled to 900m.

The loss of the hole at AP4 when the rods snapped was unfortunate, but these things happen when hunting for elephants. Amongst the geological team this proposed hole GDRCD008 was top-rated given its proximity to the major fault and because as it represents the modelled continuation of the Newcrest/Greatland JV "Havieron North" gravity ridge target recently reported to be drilled to 1,200m. We look forward to re-drilling this hole as soon as Phase 1 recommences in early 2022 and in the meantime will look out for any assay results from Havieron North and ZIPA which are listed as pending by the Newcrest/Greatland JV These may aid our own exploration.

As our core has only been drilled recently, obviously we do not yet have assays to determine the presence of gold. As such caution is always warranted however given the observations described and proximity to a multi-million ounce mine, we are even more convinced of the potential for major discoveries at our 100% owned project.

With all required permits at Atlas and Apollo already in place and our rigs secured, we look forward to the earliest possible re-start in the new year once local climatic conditions are tolerable. We can then look forward to a full nine months of drilling at Paterson Central without seasonal pressures.

I would like to thank the Artemis team, specialist geological staff at Resource Potentials and DDH1 drillers for their excellent work in very-late season extreme conditions often topping 48 degrees C.

Artemis is a small exploration company striving to become a large exploration company in 2022 through exploration and discovery."

### **Competent Persons Statement**

The information in this announcement that relates to Exploration Results and Exploration Targets is based on information compiled or reviewed by Mr. Steve Boda, who is a Member of the Australasian Institute Geoscientists. Mr. Boda is an employee of Artemis Resources Limited. Mr. Boda 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 a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Boda consents to the inclusion in the announcement of the matters based on his information in the form and context in which it appears.

About Artemis Resources

Artemis Resources (ASX: ARV; FRA: ATY; US: ARTTF) is a Perth-based exploration and development company, led by an experienced team that has a singular focus on delivering shareholder value from its Pilbara gold projects – the Greater Carlow Gold Project in the West Pilbara and the Paterson Central exploration project in the East Pilbara.

For more information, please visit www.artemisresources.com.au

This announcement was approved for release by the Board.

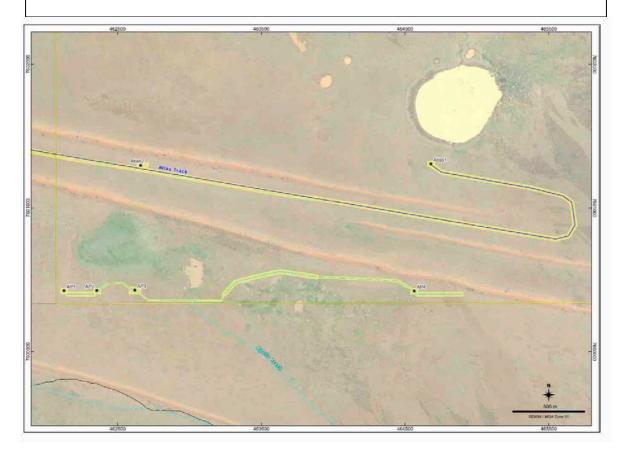
For further information contact:

Alastair Clayton

**Executive Director** 

alastair.clayton@artemisresources.com.au

Hole ID	Туре	Easting GDA94	Northing GDA94	RL (m)	Dip	Azim Mag	Total Depth (m)
GDRCDD004	DD	464680.00	7601360.00	294	-64.55	74.66	810.7
GDRCDD005	DD	462600.00	7601306.00	294	-64.40	73.19	730.1
GDRCDD006	DD	462390.29	7600435.48	295	-64.35	78.89	623.2
GDRCDD007	DD	462620.00	7600428.00	294	-75.27	78.62	804.5
GDRCDD008	DD	464680.00	7601306.00	294	-64.39	77.43	241.3





#### SECTION 1 SAMPLING TECHNIQUES AND DATA

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

Criteria	Commentary
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>
Drilling techniques	<ul> <li>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 diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> <li>Reverse Circulation and diamond drilling was completed by DDH1 using two truck mounted DE840 multipurpose rigs mounted on 8x8 trucks.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure 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> <li>Recoveries are recorded on logging sheets and are also independently measured by drillers using drill runs. Due to the competent nature of the rock type encountered in the projects, diamond core recovery is &gt;90%.</li> <li>Statistical analysis on recoveries vs grade at this stage is not possible due to the lack of assays.</li> </ul>

ARTEMIS RESOURCES ASX:ARV FRA:ATY US:ARTTF



Criteria	Commentary
Logging	<ul> <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> <li>RC samples were collected from the static cone splitter and discarded.</li> <li>Diamond core is placed into core trays at the drill site with all marking on the core with respect to core block depths and orientation locations completed at site.</li> <li>Core trays are labelled with tray numbers and from – to depths.</li> <li>Core is transferred to core logging facility where it will be processed for geological, structural and geotechnical logging.</li> <li>A summary log of core has been completed at this time. A detailed log will be completed in 2022.</li> <li>The geological data would not be suitable for inclusion in a Mineral Resource Estimation (MRE) at this stage.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and • No samples have been taken at this time. 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> <li>Measures taken to ensure that the sampling is representative of the in-situ 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>
Quality of assay data and laboratory tests	<ul> <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>
Verification of sampling and assaying	<ul> <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</li> <li>Significant intercepts were visually checked by senior geologists who confirmed them as prospective for mineralisation.</li> <li>These sections of interest were marked up and core packed and securely sent to the core logging facility for processing.</li> </ul>

ARTEMIS RESOURCES ASX:ARV FRA:ATY US:ARTTF



Criteria		Commentary
	<ul> <li>verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	
Location of data points	<ul> <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> <li>A Garmin GPSMap62 hand-held GPS was used to define the location of the initial drill hole collars. Standard practice is for the GPS to be left at the site of the collar for a period of 5 minutes to obtain a steady reading. Collar locations are accurate to within 5m.</li> <li>A high-quality downhole north-seeking continuous survey gyro-camera was used to determine the dip and azimuth of the hole at 30m intervals down the hole.</li> <li>Zone 50 (GDA 94).</li> <li>Surface collar coordinates will be surveyed via RTK GNSS with 1cm accuracy by a professional surveying contractor</li> </ul>
Data spacing and distribution	<ul> <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> <li>The holes in this program are deemed 'wild-cat' holes and as such are not drilled to any grid spacing, but targeting geophysical targets at depth.</li> <li>No compositing will be applied.</li> </ul>
Orientation of data in relation to geological structure	2 C	<ul> <li>Drill holes were designed to intersect geophysical targets and hence orientations of structures and mineralisation are not known.</li> </ul>
Sample security •	<b>T</b> I	<ul> <li>The chain of custody is managed by the supervising geologist and overseen by the Competent Person.</li> <li>Core trays are stacked on pallets at site 8 trays high and strapped.</li> <li>Drillers transported pallets off-site to DDH1 camp laydown area ready for transport.</li> <li>These pallets are then transported by a registered transport company (in this case, Hawkzone) directly to the core facility at Radio Hill.</li> </ul>
Audits or reviews •	The results of any audits or reviews of sampling techniques and data.	Not completed at this stage.

#### SECTION 2 REPORTING OF EXPLORATION RESULTS

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

Criteria		Commentary
Mineral tenement and land tenure status	<ul> <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> <li>Drilling by Artemis was conducted on E45/5276 – 100% owned by Artemis Resources Ltd.</li> <li>This tenement is in good standing, free of any impediments.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>Majority of the exploration for gold was completed by Newcrest and its predecessor Newmont, within the area encompassing E45/2418, 45 km to the east of Telfer gold mine known locally as Anketell, commenced in 1986 and progressed in three main phases to 1996.</li> <li>1986-1989: Originally part of Newmont's Canning tenement group, surface geochemical sampling (mainly BLEG) and RAB and RC drilling were undertaken in the Anketell area following the recognition of a suite of distinctive and intriguing aeromagnetic anomalies. Results from this work were not encouraging and the tenements were surrendered.</li> <li>1991-1992: New tenement coverage was obtained by Newcrest following detailed interpretation of the aeromagnetics and recognition that the earlier work had not, in fact, tested the magnetic anomalies because of thick Phanerozoic cover. Diamond drilling was used to test several of the anomalies, with mineralization of potential economic significance being intersected in two holes at the Havieron Prospect. Unfortunately, the Proterozoic-hosted mineralization is concealed beneath +400m of post-mineral cover, and no further work was done in this period.</li> <li>1995: The project was again revived, with a program of diamond drill testing of additional magnetic targets in the northern parts of the Anketell area without success, and at the Havieron Prospect with only minor success.</li> <li>1997: No exploration was undertaken on M45/605. The tenement was included in a package of Telfer tenements on offer for farm-out.</li> <li>1998-2001: The Havieron tenement M45/605 was included as part of the Normandy/Newcrest Crofton JV. No further field work was undertaken during this time and Normandy withdrew from the JV on 10" January, 2001. The Mining Lease was subsequently surrendered by Newcrest Mining Limited on the 19" March, 2001.</li> <li>2003: The area was reapplied for by Newcrest Mining Limited on the 43" May, 2002 and subsequently gene tenamed Havieron to reflect the location of the original AMAG anomaly</li></ul>



Criteria	Commentary
Criteria Geology Deposit type, geological setting and style of mineralisation.	<ul> <li>Geoscience Pty Ltd for thin section petrological analysis.</li> <li>2006: An aeromagnetic survey was conducted across the entire tenement.</li> <li>2007: No exploration conducted on surrendered ground.</li> <li>2008: A 4-hole air core program was conducted to test an aeromagnetic anomaly.</li> <li>2013 – 2015, Potash exploration by Reward Minerals concluded that the area was not prospective for potash occurrences.</li> <li>2014 - Ming Gold explored on E45/3598. Work included reinterpretation of the geophysical data (magnetics, gravity and EM) along with core inspection at Havieron. Due to significant depth of cover the Proterozoic basement was not reached for several targets and in other cases it is interpreted that the drilling potentially missed the anomalies.</li> <li>2018 – Tenement E45/5276 acquired by Armada Mining, subsidiary of Artemis Resources. Armada completed low detection soil sampling (MMI and Ionic leach). Three deep diamond holes were drilled in the Nimitz Prospect only 2.5km to the east of Havieron area for a total of 3,012m. Drilling programs are on-going.</li> </ul>
	the regional west-northwest strike. The variety of dip direction in the area implies a structural complexity that is not yet fully understood, however, is consistent with the prospect representing a geological anomaly accounting for the localised mineralisation. Sulphide mineralisation at Havieron includes pyrite ± chalcopyrite occurring as breccia-fill, and occasionally, strata-bound pyrrhotite, all of which appear to be linked to gold and bismuth mineralisation, (Stewart, M.A., 2008 Annual Technical Report, Newcrest).

ARTEMIS

Criteria		Commentary
	<ul> <li>the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</li> <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> <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>	
Data aggregation methods	<ul> <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>	Not applicable
Relationship between mineralisation widths and intercept lengths	<ul> <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> <li>If it is not known and only the down hole lengths are reported, there</li> </ul>	

## ARTEMIS RESOURCES ASX:ARV FRA:ATY US:ARTTF



Criteria	Commentary	
	should be a clear statement to this effect (eg 'down hole length, true width not known').	
Diagrams	<ul> <li>Appropriate maps and Appropriate diagrams are 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>	shown in the text.
Balanced reporting	<ul> <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> <li>Not Applicable</li> </ul>	
Other substantive exploration data	<ul> <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> <li>Not Applicable</li> <li>Stances</li> </ul>	
Further work		to drilling is justified to continue to test ased on results to date.

