

ASX / Media Announcement

22 March 2018

APROVALS GRANTED FOR +3,300 METRE SUPER-DEEP HOLE TENEMENTS - Karratha, Western Australia-

# **Highlights:**

- WA Department of Mines, Industry, Regulations and Safety (DMIRS) grants Exploration Licence over the proposed site for the super-deep diamond drill hole (ASD-1) site.
- All Native Title Agreements are now in place.
- Programme of Works (POW) for the drill hole submitted to the DMIRS.
- CSIRO to work with Artemis on ASD-1.
- Artemis to now apply for EIS co-funding for ASD-1.
- The proposed drill site is about 50km south of Radio Hill Processing Plant.
- 6 VTEM clusters of base metals targets with a total of 31 anomalies identified within 25km of proposed ASD-1 site.
- ASD-1 will be drilled ~11km north-west of CRA Exploration Pty Ltd.'s (CRA) diamond drill hole DDH84MF#1, drilled in 1984/85 to a total depth of 2,269.95m.
- The CRA drill hole intersected 10.67g/t Au over 0.5m from 1,756m<sup>1</sup>.
- Artemis plans to complete a number of down-hole electro-magnetics (EM) surveys to test for conductors whilst the hole is being drilled.

David Lenigas, Artemis's Executive Chairman, commented;

"We are pleased to get these 599km<sup>2</sup> of tenements granted so quickly and work is now underway to get the Programme of Works approvals in place to drill this exciting super-deep diamond drill hole, designed to test for base metals, cobalt, gold and diamonds and also drill deep into the Pilbara Basin. We are also pleased to be working closely with the CSIRO on this project."

Artemis Resources Limited ("Artemis" or "the Company") (ASX: ARV) is pleased to announce that it finalised all of the necessary Native Title Agreements over E47/3707, E47/3708 and E47/3709 (the Balmoral tenement package) covering a total of 599km<sup>2</sup> and that the WA Department of Mines, Industry, Regulations and Safety (DMIRS) has now granted all of these tenements. These tenements are located about 50 km south of Artemis's Radio Hill Mine in the Karratha Region of Western Australia.

Artemis plans to drill a super-deep +3,300m diamond drill hole (ASD-1) on E47/3707 (See proposed location of ASD-1 marked on Figure 1).

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**Directors:** 

**Executive Chairman** David Lenigas

**Executive Directors** Edward Mead Alex Duncan-Kemp

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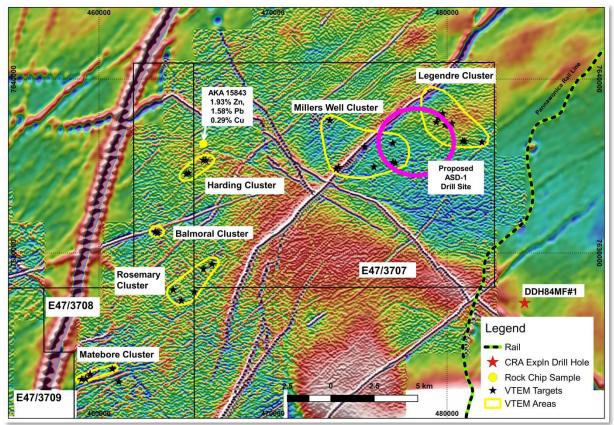
**Company Secretary:** Guy Robertson

## Corporate Information ASX Code: ARV





Figure 1: Proposed Location of ASD-1 Diamond Drill Hole, with Magnetics, identified VTEM clusters and anomalies.



A Programme of Works (POW) had been submitted to the DMIRS to drill ASD-1 and Artemis plans to commence drilling the moment the POW is approved.

### CSIRO Scope:

Artemis will be working with the CSIRO on ASD-1.

CSIRO will focus on characterising the drill core obtained from the deep hole through the Pilbara stratigraphy. They propose to use up-to-date geochemical and geophysical methods to provide stratigraphic and petrophysical constraints on the Neoarchean and Mesoarchean sequences and study important target horizons for Artemis. This will be the first major project to take advantage of CSIRO's Drill Core Lab facility in Perth. The proposed research will examine the stratigraphy of the drill core using XRF-based chemistry and include focused studies of Artemis' key target horizons.

## Hole Co-Funding:

Artemis has budgeted for the drilling of ASD-1 and has already received third-party interest in cofunding this hole and Artemis is considering this scenario. Importantly, now that the Balmoral tenement package has been granted, Artemis will be applying for a co-funded Exploration Drilling Program, which is a flagship program of the Exploration Incentive Scheme (EIS), provided by the West Australian Government. EIS is a competitive program, open for applications twice a year, which offers up to a 50 per cent refund for innovative exploration drilling projects, capped at specific amounts. If successful, the EIS could provide up to \$200,000 in funding for this single super-deep ASD-1 drill hole.

### Background on the Balmoral Target Areas:

On the Balmoral tenement package, Artemis have multiple diamondiferous dykes/pipes, such as Blacktop 1 and 2<sup>4</sup>, which have come up from the lower mantle below the earth's crust, the presence of a significant magnetic high feature, crustal breaks interpreted to be faults and dykes, 31 VTEM



anomalies for base metals and rock chip assays<sup>3</sup> and geochemical anomalies showing the presence of Cobalt, Nickel, Copper, Zinc, Lead and gold<sup>4</sup>, at surface, proximal to the proposed ASD-1 site.

Regionally, within Artemis's extensive tenement package, there are pervasive intrusions throughout the entire area such as Munni Munni, Radio Hill and Mt Sholl, with newly identified intrusions at Silica Hills and Purdy's Reward, which confirms mineralisation associated with intrusions.

#### **VTEM Targets**

ASD-1 will be drilled in the area where Fox Resources Limited completed a VTEM survey that resulted in the discovery of six new clusters of base metal targets: LEGENDRE, MILLERS WELL, HARDING, BALMORAL, ROSEMARY and MATEBORE<sup>1 and 5</sup>. Each of the six clusters identified contain between two and eleven base metal targets, totalling 31 targets overall. Fox Resources also returned, from very limited exploration, a surface rock chip sample grading 1.93% zinc, 1.58% lead and 0.29% copper near the Harding cluster<sup>2</sup>.

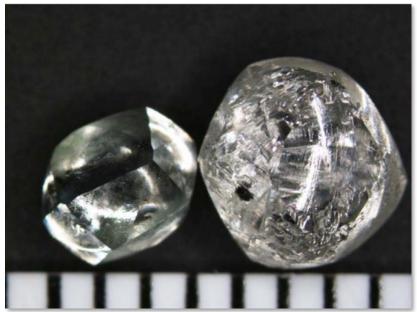
Russel Mortimer from Southern Geoscience Consultants has reviewed all the geophysical data that was collated and is contained within this release and confirms that there has been no material change.

#### **Gold Target**

11km to the south-east of the proposed ASD-1 hole, CRA Exploration Pty Ltd drilled a 2,269.95 metre diamond drill hole DDH84MF#1 in 1984/85 and intersected 0.5 metres grading 10.67 g/t Au from 1,756m<sup>1</sup>. Artemis has inspected the core from this drill hole at the GSWA Core Library, and believes the hole needs to be drilled deeper.

#### **Diamond Targets**

In addition, ASD-1 is located ~20km north-east from the BlackTop Kimberlite discoveries proximal to the Matebore Cluster within the Balmoral tenement package<sup>3</sup>. The Blacktop Kimberlite discoveries, which were assessed by the DeBeers/Tawana Resources NL JV ("JV") in 2006/7, recovering a total of 2,320 diamonds, weighing 163.89 carats were recovered from a bulk sampling programme of approximately 6,000 tonnes<sup>2</sup> in 2006/7. The majority of the stones were white dodecahedrons, with the largest stone weighing 1.41 carats.



### Figure 2: Selected diamond recovered from Blacktop in 2006<sup>3</sup>

<sup>&</sup>lt;sup>1</sup> Fox Resources Limited ASX announcement dated 1 February, 2008 – December 2007 Quarterly Report.

<sup>&</sup>lt;sup>2</sup> Fox Resources Limited ASX announcement dated 30 April, 2008 – March 2008 Quarterly Report.

<sup>&</sup>lt;sup>3</sup> Artemis Resources Limited ASX announcement dated 16 May 2017 - Increase in Prospective Karratha Land Package to 1,536 sq km
<sup>5</sup> Artemis Resources Limited ASX announcement dated 21 November 2007 - New Exploration Frontier Delivers Exciting Base Metal Targets for Fox



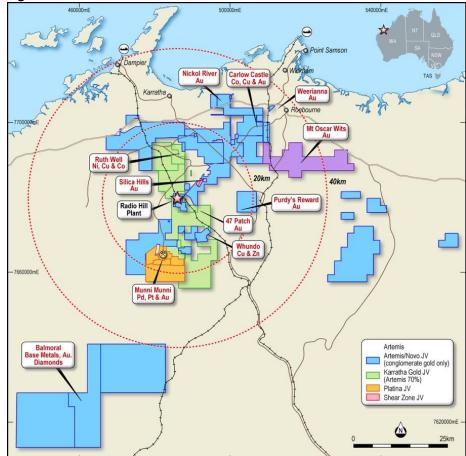


Figure 3: Artemis's Tenements in the Karratha Area

## CONTACTS:

For further information on this update or the Company generally, please visit our website at www.artemisresources.com.au or contact:

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## COMPETENT PERSONS STATEMENT:

The information in this document that relates to Exploration Results and Exploration Targets is based on information compiled or reviewed by Edward Mead, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Mead is a Director of Artemis Resources Limited and is a consultant to the Company, and is employed by Doraleda Pty Ltd. Mr Mead 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 Mead consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



### BACKGROUND INFORMATION ON ARTEMIS RESOURCES:

Artemis Resources Limited is a resources exploration and development company with a focus on its prospective Karratha (gold, cobalt, base metals, platinum group elements and iron ore) and the Mt Clement Paulsens (gold) project in Western Australia.

Artemis owns the ~500,000tpa Radio Hill nickel, copper and cobalt mine and processing plant located 25km south of Karratha. JORC 2004 compliant resources of Gold, Nickel, Copper PGE's and Zinc, all situated within a 40km radius of the Radio Hill plant and on 1,838km<sup>2</sup> form the newly consolidated assets of Artemis Resources.

Artemis have signed Definitive Agreements with Novo Resources Corp. ("Novo"), and pursuant to the Definitive Agreements, Novo has satisfied its expenditure commitment, and earned-in to 50% of gold (and other minerals necessarily mined with gold) in conglomerate and/or paleoplacer style mineralization in Artemis' tenements within 100km of the City of Karratha, including at Purdy's Reward ("the Gold Rights"). The Gold Rights do not include (i) gold disclosed in Artemis' existing (at 18 May 2017) Mineral Resources and Reserves reported in compliance with the JORC Code (2012), or (ii) gold which is not within conglomerate and/or paleoplacer style mineralization or (iii) minerals other than gold. Artemis' Mt Oscar tenement is excluded from the Definitive Agreements.

The Definitive Agreements cover 38 tenements / tenement applications that are 100% owned by Artemis. Pursuant to Novo's successful earn-in, three 50:50 joint ventures have been formed between Novo's subsidiary, Karratha Gold Pty Ltd ("Karratha Gold") and three subsidiaries of Artemis (KML No 2 Pty Ltd, Fox Radio Hill Pty Ltd, and Armada Mining Pty Ltd). The joint ventures are managed as one by Karratha Gold. Artemis and Novo will contribute to further exploration and any mining of the Gold Rights on a 50:50 basis.

### FORWARD LOOKING STATEMENTS AND IMPORTANT NOTICE:

This report contains forecasts, projections and forward-looking information. Although the Company believes that its expectations, estimates and forecast outcomes are based on reasonable assumptions it can give no assurance that these will be achieved. Expectations, estimates and projections and information provided by the Company are not a guarantee of future performance and involve unknown risks and uncertainties, many of which are out of Artemis' control. Actual results and developments will almost certainly differ materially from those expressed or implied. Artemis has not audited or investigated the accuracy or completeness of the information, statements and opinions contained in this presentation. To the maximum extent permitted by applicable laws, Artemis makes no representation and can give no assurance, guarantee or warranty, express or implied, as to, and takes no responsibility and assumes no liability for (1) the authenticity, validity, accuracy, suitability or completeness of, or any errors in or omission from, any information, statement or opinion contained in this report and (2) without prejudice to the generality of the foregoing, the achievement or accuracy of any forecasts, projections or other forward looking information contained or referred to in this report.

Investors should make and rely upon their own enquiries before deciding to acquire or deal in the Company's securities.



# Appendix 1: Collar Location & Significant Analyses from DDH84MF#1 drilled in 1984-85, reported in 1987.

							_	_	_	Au
Hole ID	Hole Type	Max Depth	MGA N	MGA E	Latitude	Lonaitude	From (M)	То (M)	Au (maa)	(ppm) (rpt)
	i ypc	Deptil			Latitude	Longitude				(199
DDH84MF#1	DDH	2270	7627119	484459	-21º 27.5"	116º 51"	1756	1756.5	10.67	11.7

Note: Latitude /Longitude converted to MGA Zone 50 co-ordinates by Artemis personnel.

## JORC Code, 2012 Edition – Table 1

## **Section 1 Sampling Techniques and Data**

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (e 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 example 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 3 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) mawarrant disclosure of detailed information.</li> </ul>	<ul> <li>diamond core drilling</li> <li>Diamond drill core was cut in hal with a diamond blade on nomina 0.5 metre interval, or to lithological contacts.</li> <li>Sampling was carried out using protocols established by CRA Exploration at the time.</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, whethe core is oriented and if so, by wha</li> </ul>	



Criteria	JORC Code explanation Commentary
Drill sample recovery	<ul> <li><i>method, etc).</i></li> <li><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li><i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse</i></li> <li><i>Diamond drilling recovery ha generally been excellent an close to 100%.</i></li> <li>The core is measured agains core blocks placed at the end of each drill rod pull.</li> </ul>
Logging	<ul> <li><i>material.</i></li> <li><i>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.</i></li> <li><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li><i>Reverse Circulation drill chips were lithologically logged</i></li> <li>Diamond core is lithologically logged.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>The total length and percentage of the relevant intersections logged.</li> <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> <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</li> </ul>
Quality of assay data and laboratory tests	<ul> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li><i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations</i></li> <li>Diamond core analysis is by Analat (Perth).</li> <li>The laboratory techniques below are for all samples submitted to Analate and are considered appropriate for the style of mineralisation defined a the time:</li> <li>Crush to -2 mm and pulverise to 95% passing 75 microns</li> <li>Au – 30gm fire assay/AAS</li> </ul>



Criteria	JORC Code explanation Commentary
	<ul> <li>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> <li>Co, Cu, Ni, Pb, Zn, Ag Perchloric acid/AAS</li> <li>Ba, U – Pressed der XRF. Use of standards was not reported. Use of duplicates was not reported.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independen 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> <li>All geological logging was typed int hard copy records.</li> <li>Hard copy of analytical result included in report.</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> <li>Method of survey location no reported.</li> <li>Latitude &amp; longitude were converte by Artemis personnel to MGA Zon 50 UTM using XL based Souther Hemisphere UTMConversion2015.</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> <li>A single Diamond drill was completed.</li> <li>A single Diamond drill was completed.</li> </ul>
Orientation of data in relation to geological structure	••
Sample security	<ul> <li>The measures taken to ensure <ul> <li>Core is now held in WA Core Librar sample security.</li> </ul> </li></ul>
Audits or reviews	The results of any audits or      reviews of sampling techniques     and data.



## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	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>The tenement was EL47/182, was an application at time of drilling held by CRA Exploration Pty Ltd.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>Work was entirely completed by CRA Exploration.</li> </ul>
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	• The drillhole was completed to test stratigraphic concepts relating to sediment hosted gold and uranium deposits, with strong affinities to the Witwatersrand style.
Drill hole Information	<ul> <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> <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>	• Not known.
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg</li> </ul>	<ul> <li>Not relevant to exploration being undertaken.</li> </ul>

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



		RESOURCES
Criteria	JORC Code explanation	Commentary
	<ul> <li>cutting of high grades) and cutoff 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>	
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</li> </ul>	<ul> <li>A better understanding of th thicknesses of stratigraphic units i the Fortescue Group.</li> </ul>
	<ul> <li>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 should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	
Diagrams	<ul> <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> <li>Appropriate maps and sections are available in the body of this announcement.</li> </ul>
Balanced reporting	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.	<ul> <li>Reporting of results in this report is considered balanced.</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</li> </ul>	<ul> <li>Interpretation of geophysical data t be undertaken.</li> </ul>



Criteria	JORC Code explanation	Commentary			
	substances.				
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions, depth extensions or large-scale stepout drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Artemis is planning a similar deep diamond drill hole to test similar stratigraphy and geophysical targets.</li> </ul>			