# Artemis

# ASX / Media Announcement

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# **Directors:**

**Executive Chairman** David Lenigas

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

Company Secretary: Guy Robertson

## Corporate Information ASX Code: ARV



# 14km of New Gold Bearing Conglomerates discovered at 100% owned Mt OscarWits Gold Project, Karratha, WA

- 14km of new gold bearing conglomerate sequences have been identified by Artemis geologists at Mt OscarWits Gold Project located 16km from Purdy's Reward.
- 75m thick stacked conglomerates with an east-west strike outcropping.
- Mt OscarWits is now 100% owned by Artemis.
- Approved 117.8km<sup>2</sup> Exploration Licence with heritage surveys.
- Gold grades up to 10.93 g/t Au from rock chip samples of conglomerates.

## David Lenigas, Artemis's Executive Chairman, commented;

"We have already traced these gold bearing conglomerates for a distance of about 14km and have identified extensive outcropping conglomerate with exposed widths of up to 75 metres as shown in Figure 1. The recent discovery of Archean aged conglomerate gold mineralisation at our Purdy's Reward Gold Project to the south has been an exciting development for the Company and we have now also identified gold in a very large conglomerate sequence to the north of Purdy's at our nearby 100% owned Mt OscarWits Project. The potential scale of these Mt OscarWits gold bearing conglomerates are very significant and makes this a new and exciting project for the Company."

Artemis Resources Limited ("Artemis" or "the Company") (ASX: ARV) is pleased to announce that it has now taken back 100% control of its 117.8km<sup>2</sup> Mt Oscar exploration licence 47/1217 from Magnetic South Pty Ltd. The tenement is a granted Exploration Licence, and is located approximately 35km south-east of Karratha and 16km north-east of the Company's new Purdy's Reward conglomerate hosted gold project.

# Note: Mt Oscar Exploration Licence (E47/1217) does not form part of the Artemis Memorandum of Agreement as announced on 29 May 2017 with Novo Resources Corp.

## Mt OscarWits Conglomerate Gold Project:

Artemis geologists have just completed a due diligence field inspection of the Mt Oscar tenement (Figure 3). The geological team, after the discovery earlier this year of conglomerate hosted gold at the Purdy's Reward Gold Project, has now identified significant gold bearing sedimentary sequences within very coarse quartz conglomerate and sandstone units at the Mt OscarWits Project. The Company believes these are part of the Fortescue Group and hence can be directly correlated with the Company's Purdy's Reward sequence of mafic sediments and polymictic conglomerates located only 21km to the south-west.



The Mt OscarWits sedimentary sequences extend over an east-west strike length of some 14km with true widths up to 75m thick in outcrops (Figure 1), with gold currently proven toward the eastern and western ends. The central zone does not appear to have been sampled for gold with the previous focus being primarily on iron ore.

The conglomerates at Mt OscarWits are quartz rich (Figure 2) and "cleaner" in character than the Purdy's Reward mafic rich conglomerates, as the Mt OscarWits matrix "glue" within the conglomerates is primarily quartz sand and the conglomerate fragments consist of quartz and chert pebbles and boulders.

Figure 1: Mt OscarWits prospective conglomerate sequence is 75 metres thick at the Churnside Prospect, where a rock chip sample returned 10.93 g/t gold from a coarse-grained clast supported cobble conglomerate.



There appear to be sedimentary sequences totaling up to 75m in true thickness, hosting the gold with an interlayered basaltic unit analogous to the Mt Roe Basalt. The sedimentary sequences at Mt OscarWits have been folded and faulted creating duplication with four units being mapped in several places over the significant strike length.

Exploration activities in recent years have focused primarily on the magnetite iron ore potential of the tenement, where the Company now has a 100% owned indicated and inferred JORC Resource of 126Mt @ 33.8% Fe Head Grade<sup>1</sup>.

As part of the Mt Oscar iron ore rock chip exploration program, geologists sampled a conglomerate unit at the White Quartz Hill Prospect, located some 12km east-north-east of the Mt Oscar iron mineralisation and returned a peak gold assay of **6.38g/t Au** (Table 1).

The conglomerate unit at the Churnside Prospect (Figure 1) was sampled. The Churnside Prospect is located 10km west of the White Quartz Hill prospect and 2km northeast of the Mt Oscar iron mineralisation in an area not covered by previous ground based exploration activities. A peak assay result of **10.93 g/t Au (average of 13.9 g/t Au primary and 7.96g/t Au repeat,** (Table 1) was returned

<sup>&</sup>lt;sup>1</sup> As per Artemis Resources ASX announcement dated 16 Dec 2016



from the 4 samples collected in the area. The 10.93g/t Au sample was recovered from a coarse-grained clast supported cobble conglomerate and likely represents a primary placer style form of mineralisation in a high-energy environment with a high coarse gold component. The mineralised unit is bounded by a larger matrix supported pebbly conglomerate.

FXMO004	East	North	Au	Au	Au	Au	Au Final	Pt	Pd	As
UNITS			ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
METHOD			PGM-MS	Au-TL43	Au-AA25	Au-OG43	Average	PGM-MS23	PGM-MS	ME-ICP61
AKA17263	520220	7687302	>1.00	>1.00	13.90	7.96	10.93	0.0029	0.007	103
AKA17287	529369	7688628	>1.00	>1.00	7.48	5.29	6.38	0.0023	0.002	1200

Table 1: Mt OscarWits - White Quartz Hill and Churnside Gold Prospects.	
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A significant volume of conglomerates now exists within the Mt Oscar tenement and follow up work is now a priority for the Company.

Based on the recent field inspections, Artemis geologists interpret the conglomerate sequence to be analogous to the Purdy's Reward prospect and being at the base of the Fortescue Group. This is contrary to the previous governmental mapping on the Roebourne 1:100,000 mapsheet, which interprets the sequence to be at the base of the older Whim Creek Group and part of the regional Pilbara Supergroup.

Fortuitously, the entire prospective sequence of the Mt OscarWits Project falls entirely within the 117.8km<sup>2</sup> Mt Oscar tenement, with the conglomerate sequence having a strike length of about 14km, with numerous repetitions of the prospective horizons evident. These horizons appear to have been caused by folding and faulting substantially increasing the prospective strike length.

#### Figure 2: Quartz and Chert Conglomerate with sand matrix.







Figure 3: Artemis Resources Projects in Karratha Area.

#### BACKGROUND INFORMATION ON ARTEMIS RESOURCES

Artemis Resources Limited is a resources exploration and development company with a focus on its prospective Pilbara (gold, cobalt, base metals, platinum, platinum group elements and iron ore) and the Mt Clement-Paulsens (gold) project in Western Australia. Artemis owns the fully permitted 425,000tpa Radio Hill nickel and copper operations, processing plant and associated mining and exploration tenements with significant existing JORC 2004 compliant resources of Nickel, Copper and Zinc situated within a 15 km radius of the Radio Hill plant. The Radio Hill Plant is located 35 km south of Karratha in the Pilbara Region of Western Australia.

#### CONTACTS

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

#### Investors / Shareholders

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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 Allan Younger, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Younger is a consultant to the Company, and is employed by Indigo Geochemistry Pty Ltd. Mr Younger has sufficient experience which 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 Younger consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### 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.



# 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 (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.</li> </ul>	Rock chip sampling of outcrops
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> </ul>	Drilling not being reported
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 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>	Not drill samples
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> </ul>	Samples were geologically logged when collected.
Sub- sampling techniques and sample preparation	<ul> <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> </ul>	<ul> <li>Not recorded.</li> <li>A sample size of 1kg was collected and considered appropriate and representative for the grain size and style of mineralisation</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul> <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 (i.e. lack of bias) and precision have been established.</li> </ul>	<ul> <li>ALSglobal Laboratories (Perth) were used for the analysis work carried out on the rock chip samples. The laboratory techniques below:</li> <li>Au by PGM-MS</li> <li>Au by TL43</li> <li>Au by Au-AA25</li> <li>Au by OG43</li> <li>Pt &amp; Pd by PGM-MS23</li> <li>As by ME-ICP61</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 verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	Not drill samples
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>Not recorded</li> <li>Grid system used for Fox Resources Ltd sampling is MGA 94 (Zone 50)</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>Randomly spaced reconnaissance sampling.</li> <li>Not for ore resource estimation.</li> <li>No compositing applied.</li> </ul>
Orientation of data in relation to geological structure	<ul> <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> <li>Samples have been obtained whilst conducting reconnaissance geological mapping which was seeking to identify mineralised structures/lodes.</li> </ul>



Criteria	JORC Code explanation	Commentary
Sample security	<ul> <li>The measures taken to ensure sample security.</li> </ul>	Not known
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>No audit of rock sampling data has been completed to date</li> </ul>

# **Section 2 Reporting of Exploration Results**

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<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>E47/1217 is in good standing and is 100% owned by Artemis Resources Ltd.</li> <li>See map elsewhere in this report for locations.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>The most significant historic exploration identified to date at Mt Oscar (E47/1217) was completed by Fox Radio Hill Pty Ltd from 2008, targeting iron ore. A subsequent joint venture with Magnetic South Pty Ltd continued to focus on the iron ore potential of Mt Oscar. This work included rock chip sampling, reverse circulation and diamond drilling.</li> <li>All exploration and analysis techniques conducted by Fox Resources and Magnetic South Pty Ltd are considered to have been appropriate given the available techniques at the time.</li> </ul>
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul> <li>At Mt Oscar, gold mineralisation has been identified as being associated with siliceous conglomerate lithologies.</li> <li>As exploration is at an early stage at Mt Oscar, further work is required to determine the geological setting and provenance of the gold mineralisation.</li> <li>Morphology of gold mineralization is unknown, assumed to be potentially coarse grained.</li> </ul>
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</li> </ul>	<ul> <li>Not relevant to the current rock chip sampling.</li> </ul>



Criteria	JORC Code explanation	Commentary
	Competent Person should clearly	
Data aggregation methods	<ul> <li>explain why this is the case.</li> <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> <li>No upper or lower cut-off grade was applied.</li> <li>No metal equivalents are used for reporting.</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 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>	<ul> <li>No mineralisation widths are being reported.</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	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.	<ul> <li>No other significant exploration work has been done by Artemis.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions, depth extensions or large- scale step-out 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>Plans are to follow-up mapping and sampling with further geochemical sampling, trenching, and drilling.</li> </ul>