

Artemis Resources Limited ARBN: 80 107 051 749

Level 3, IBM Building, 1060 Hay Street, West Perth, WA Australia, 6006

PO Box R933 Royal Exchange NSW Australia, 1225

Phone: +61 2 9078 7670 Facsimile: +61 2 9078 7661

Email:

in fo@artemis resources.com. au

Website:

artemisresources.com.au

### **Directors:**

**Executive Chairman** David Lenigas

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

**Non-Executive Directors**George Frangeskides
Campbell Baird

**Company Secretary:** Guy Robertson

Corporate Information ASX Code: ARV



**ASX / Media Announcement** 

6 February 2017

Note: Artemis will trade under ASX code ARVDA, on a consolidated deferred settlement basis, from 2 February 2017 to 10 February 2017 (Inclusive).

# NEW NICKEL/COPPER SULPHIDE ZONES IDENTIFIED 300 METRES FROM THE EXISTING RADIO HILL MINE – KARRATHA, WESTERN AUSTRALIA.

- High Power Down Hole Electromagnetic ("HP-DHEM") survey programme has commenced on two existing diamond drill holes located 300 to 500 metres southeast of the existing Radio Hill Nickel/Copper/Cobalt mine workings (Figure 1).
- A review and reinterpretation of historic geophysical data, indicates 2 new potential sulphide zones at depths of about 300 metres and ~600-800 metres from surface.
- The deeper zone is potentially greater than 200x200m in areal size and open to the south and south east.
- One of the holes to have HPDHEM (07RHDD080) previously intersected 1.15m of massive sulphides grading 2.81% Ni and 0.64% Cu from 323.5m, within a wider 45m disseminated sulphide zone grading 0.21% Ni and 0.19% Cu from 287 metres.
- Approval has also been received from the Department of Mines and Petroleum to drill 65 new holes in the target area.
- The Radio Hill Mine is currently on care and maintenance after being shut down in 2008 due to low nickel prices and diminishing nickel/copper ore grades from the main underground operations.
- Artemis have an agreement to acquire the Radio Hill Mine and its extensive tenement package (including existing Nickel, Copper and Zinc resources) for \$3.5 million<sup>1</sup>.

David Lenigas, Artemis's Chairman, commented;

"This is a very exciting development with the potential of finding new high grade nickel/copper sulphide mineralisation adjacent to the old Radio Hill mining operations which has been on continual care and maintenance since early 2008. There has been very little historical exploration immediately east and south east of the mine with the exception of holes #80 and #83, which intersected nickel/copper sulphides just prior to mine closure, and a small number of shallow holes that were not drilled deep enough to hit these 2 EM targets. Pretty much the entire east and south east part of Radio Hill remains unexplored and has significant potential for hosting new ore bodies. New Down Hole EM is significantly more powerful than that used in back in 2007, when #83 was drilled, and this new EM work should provide a much clearer picture of the potential for new high grade sulphide targets not only in the new target areas, but also around the existing underground mine footprint."



Artemis Resources Limited ("Artemis" or "the Company") (ASX: ARVDA) is pleased to report the start of a work programme to undertake Down Hole Electromagnetics' ("DHEM") at Radio Hill. The Radio Hill Plant is located 35 km south of Karratha in the Pilbara Region of Western Australia (Figure 3).

As announced on the 16<sup>th</sup> December 2016 with the proposed acquisition of the Radio Hill plant and mining tenements, Artemis sees significant value and exploration potential. A review of exploration data has confirmed significant new exploration potential exists for further high grade nickel/copper sulphide mineralisation at Radio Hill with outlying diamond drill hole 07RHDD080 (#80)(Figures 1 and 2) previously intersected 1.15m of massive sulphides grading 2.81% Ni and 0.64% Cu from 323.5m within a wider 45m disseminated sulphide zone grading 0.21% Ni and 0.19% Cu from 287 metres.

This #80 intersection is located only 300 metres south east from the bottom of the existing decline of the Radio Hill mine and will now be subjected to new high power DHEM over the coming weeks. The nickel/copper intersection is now interpreted to be the development of another basal embayment, where massive sulphides can accumulate.

Drill hole 07RHDD083 (#83)(200m to the south of 07RHDD080) also intersected nickel and copper mineralisation and returned 29.61 metres of disseminated grading 0.25% Ni and 0.41% Cu from 385.78 metres. The intercept included 1 metre at 0.35% Ni and 2.71% Cu from 385.78 metres and 1 metre at 0.4% Ni and 0.71% Cu from 414.39 metres. This hole was drilled to a down hole depth of 445.53m and would not have intersected the deep EM target. This hole is located some 500 metres from the Radio Hill mine and no DHEM was completed at the time of its drilling in 2007.

Artemis has selected a drill company and crew to clean out both the historic drill holes (07RHDD080 and 07RHDD083) ready for a DHEM geophysical crew.

The timing of a geophysical crew will be coordinated to coincide with completion of the drill hole preparation and is expected to occur within the following weeks.

Figure 1: Radio Hill mining operations and schematic plan showing location of drill hole 07RHDD080 and 07RHDD083

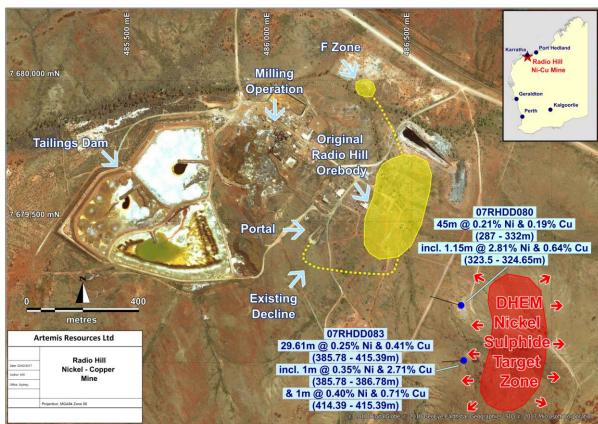




Figure 2: Radio Hill mining operations and cross section with diamond drill hole 07RHDD080 (Red and Brown-mined out A,B,C,D Lodes, Yellow – D lode ore identified and mined, Green – Disseminated sulphide ore)

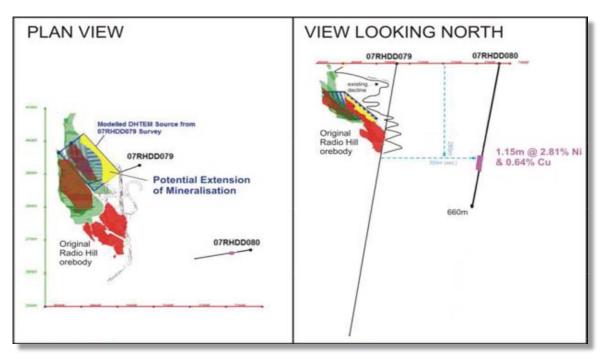
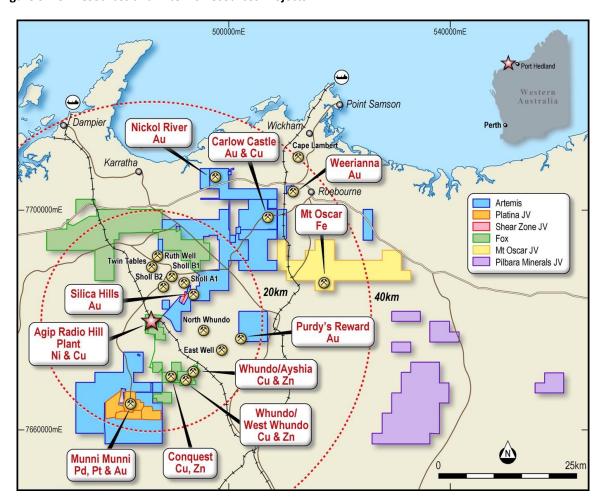


Figure 3: Fox Resources and Artemis Resources Projects





## RADIO HILL ACQUISITION<sup>1</sup>

A summary of the transaction terms are as follows:

- Fox Resources Limited and Artemis Resources Limited have signed an exclusive three month option agreement whereby Artemis plans to acquire all of Fox's Western Australian mining and exploration assets. The three month period will enable Artemis to undertake the necessary due diligence and provide time to arrange funding for the acquisition;
- Artemis will pay a fee of \$100,000 on execution of the binding agreement, \$50,000 in month two, and \$50,000 in month three;
- a final consideration of \$3.3 million for the acquisition by the end of month three or this may be extended a further 40 days on the payment of a further \$50,000 if reasonably required to; and
- The assets will be purchased clear of any outstanding creditor liabilities. No outstanding creditor liabilities associated with any of these Fox assets are to be assumed by Artemis on the day of closing.

The transaction will be conditional on:

- Artemis being satisfied with its due diligence;
- Artemis completing a debt financing arrangement or capital raising, or a combination of debt and equity
  of at least \$4 million on acceptable terms;
- all ASX and regulatory approvals; and
- any ministerial approval under the Mining Act for the acquisition and any other third party consents and approval necessary or desirable to consummate the acquisition.

## Assets to be acquired from Fox:

The 425,000 tonnes per annum Radio Hill Base Metal Processing Plant (Figures 4, 5 and 6) remains on care and maintenance. The plant can produce Nickel and Copper metal sulphide concentrates and is capable of producing a Copper/Zinc concentrate from the Whundo deposits. This can easily be modified to include a gravity gold circuit for Artemis's Weerianna, Carlow Castle, Silica Hills and Purdy's Reward gold Projects (Figure 3). It can also be used as the core of a potential platinum and palladium recovery plant for Artemis's Munni Munni Platinum Group Element deposit located 15 km south of Radio Hill.

Figure 4: AGIP Radio Hill Nickel/Copper Operations (Fox 100%) – Proposed acquisition of all the fully permitted mining and miscellaneous licences, processing plant, tailings dams, and associated surface infrastructure of the Radio Hill nickel and copper mine.



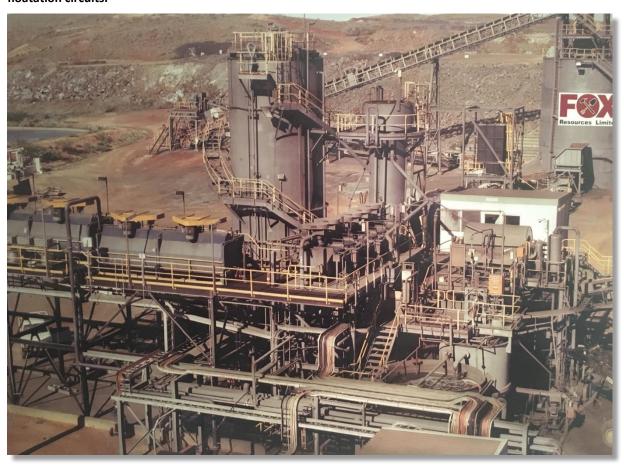
<sup>&</sup>lt;sup>1</sup> As per ASX announcement dated 16<sup>th</sup> December 2016



Figure 5: AGIP Radio Hill Nickel/Copper Operations (Fox 100%) – Radio Hill 425,000 tpa Treatment Plant and floatation circuits.



Figure 6: AGIP Radio Hill Nickel/Copper Operations (Fox 100%) – Radio Hill 425,000 tpa Treatment Plant and floatation circuits.



Radio Hill has an existing nickel/copper sulphide Resource of 4.02 Mt @ 0.51% nickel and 0.88% copper (Tables 1 and 5) (Figure 7) which remains in the existing underground workings and mine development, and down plunge along the basal contact. There are also stockpiles of mined material of around 300,000 tonnes and all the processed tailings that may have reprocessing value with recent developments in technology. This stockpile and tailings material is non JORC, but is the result of historic mineral processing of nickel and copper ores from Radio Hill from commencement of operations back in 1986.

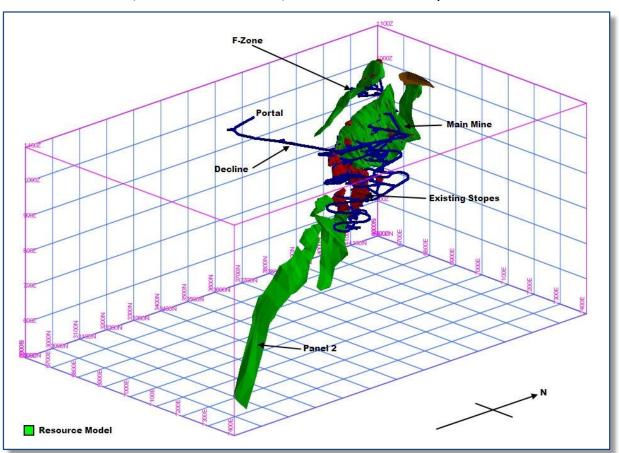


Table 1: RADIO HILL NICKEL-COPPER RESOURCE ESTIMATES

Resource Area	Mineralisation	Classification	Tonnes	Ni %	Cu %	Contained Ni (t)	Contained Cu (t)	
Radio Hill	Primary Sulphide	Indicated	1,980,000	0.61	1.04	12,078	20,592	
Radio Hill	Primary Sulphide	Inferred	2,040,000	0.42	0.73	8,568	14,892	
Total			4,020,000	0.51	0.88	20,646	35,484	

Exploration potential also exists at Radio Hill with diamond drill hole 07RHDD080 (Figure 4) intersecting 45m @ 0.21% Ni and 0.19% Cu from 287 metres, including 1.15 metres @ 2.81% Ni and 0.64% Cu from 323.5m. This intersection is 300 metres from the existing decline and warrants follow up investigation. The nickel intersection is interpreted to be on the eastern side of the Brutus Fault, which may have caused dislocation of the Radio Hill massive sulphides. The formation of another basal contact zone, where massive sulphides can accumulate, is to be investigated.

Figure 7: Radio Hill mineralisation and mine infrastructure models, looking northwest. Green indicates unmined mineralisation, red indicates mined areas, blue indicates mine development.





# Whundo West Copper/Zinc Deposit (Fox 100%, M47/7):

Table 2: WEST WHUNDO AND WHUNDO COPPER-ZINC RESOURCE ESTIMATES

Resource Area	Mineralisation	Classification	Tonnes	Cu %	Zn %	Contained Cu (t)	Contained Zn (t)
West Whundo	Primary Sulphide	Measured	386,000	1.2	1.9	4,632	7,334
West Whundo	Primary Sulphide	Indicated	259,000	1.1	1.7	2,849	4,403
Whundo	Primary Sulphide	Measured	304,000	1.3	0.1	3,952	304
Whundo	Primary Sulphide	Indicated	598,000	1.0	0.6	5,980	3,588
Whundo	Primary Sulphide	Inferred	140,000	0.8	0.2	1,120	280
Total			1,687,000	1.10	0.94	18,533	15,909

Production from the West Whundo open pit resulted in oxide and supergene copper-zinc ores being mined between April and December 2006. A total of 7,400 tonnes of ore was mined at 5.91% Copper.

Exploration drilling continued in 2007 and identified a resource (Tables 2 and 5) of 1.7Mt @ 1.1% copper and 0.9% zinc. Mineralisation has been drilled to a vertical depth of 150 metres and remains open.

# Whundo Ayshia Zinc Deposit (Fox 100%, M47/7):

Drilling has followed the mineralisation to a vertical depth of 250 metres. As with the West Whundo deposit, mineralisation is strongly zoned. Ayshia is zinc rich at surface with strong copper values developing at depth. Below the deepest drill holes Ayshia remains open. A Resource estimate was completed (Table 3) with the deposit being unmined.

Table 3: WHUNDO AND AYSHIA ZINC MINERAL RESOURCE ESTIMATES

Resource Area	Mineralisation	Classification	Tonnes	Zn %	Cu %	Contained Zn (t)	Contained Cu (t)
Whundo	Primary Sulphide	Measured	94,000	0.6	-	564	-
Whundo	Primary Sulphide	Indicated	249,000	1.2	-	2988	-
Whundo	Primary Sulphide	Inferred	78,000	1.1	-	858	-
Ayshia	Primary Sulphide	Measured	150,000	2.4	0.5	3600	750
Ayshia	Primary Sulphide	Indicated	344,000	3.3	0.5	11352	1720
Ayshia	Primary Sulphide	Inferred	273,000	1.3	0.3	3549	819
Total			1,188,000	1.93		22,911	
		Including	767,000		0.43		3,289



## Mt Oscar JV (FXR 100%, diluting to 40%, Magnetic South earning up to 60%, E47/1217)

Magnetic South Pty Ltd as Joint Venture manager is continuing with its earn-in under the Joint Venture agreement. The Mt Oscar Joint Venture on the ~121 sq km exploration licence E47/1217 is prospective for multiple commodities including iron ore (magnetite) with a resource estimate (Tables 4 and 5) of 126Mt @ 33.8% Fe Head Grade, gold, base metals and nickel. Previously the main focus of the Joint Venture has been evaluating the magnetite potential of the tenement. The exploration work during the 2016 has shifted from delineation of magnetite resources toward gold and base metals exploration. This has resulted in work focusing on the 2013 VTEM survey and validated anomalies identified after processing the VTEM data, along with the known gold prospect at White Quartz Hill.

To date Magnetic South have spent circa \$4.1 million on exploration, with a further circa \$4m expenditure to earn up to 60%. Currently, Magnetic South have earned 12% in the Mt Oscar JV.

**Table 4: MT OSCAR MAGNETITE RESOURCE ESTIMATE** 

Domain	Class	Tonnage (Mt)	Head Fe (%)	Mass Recovery (%)	Conc Fe (%)	Conc SiO <sub>2</sub> (%)	Conc Al <sub>2</sub> O <sub>3</sub>	Conc P (%)	Conc LOI (%)
Mag Anomaly 1	Indicated	43	33.6	32.8	58.6	14.2	0.80	0.036	-0.34
	Inferred	32	33.3	10.4	60.3	12.7	0.73	0.036	-0.95
Mag Anomaly 2	Indicated	40	33.9	20.0	62.9	9.9	0.40	0.022	-1.16
	Inferred	11	36.1	33.7	60.3	13.3	0.56	0.037	-1.31
Total		126	33.8	23.1	60.5	12.4	0.63	0.032	-0.84

# Pilbara Minerals Limited (PLS) JV (FXR 55% earning up to 80%, Pilbara Minerals 45%)

Eight prioritised Versatile Time Domain Electromagnetics (VTEM) anomalies have been discovered. Ground based moving loop EM surveys are required to advance these anomalies, to better define drill targets associated with possible massive sulphides for copper, zinc and nickel.

Fox are the operators of the PLS JV and have recently completed a VTEM survey over areas not previously covered. The results of the survey will be announced when they are received.

The work to date by Fox offers Artemis exploration targets to immediately follow up.

## Other New Acquisition Targets as part of the Fox Deal:

# Osborne Nickel Anomaly (E47/1807)

Initially identified from VTEM surveying and then followed up with ground EM, the nickel sulphide target is 15km north of the Radio Hill plant. The ground EM surveying defined an excellent anomaly with very high conductance suggesting the possible presence of a massive sulphide body.

## Conquest and Sunchaser VTEM Anomalies (Fox 100%, E47/1216)

A VTEM survey in late 2006 outlined several high quality anomalies at shallow depth, and partially concealed by a thin veneer of sand. FLTEM surveys confirmed two anomalies in the Whundo VMS Domain at Conquest and Sunchaser. Geological mapping identified fragmented gossans with anomalous copper and zinc values. The Electromagnetic conductors were drilled in 2007 with 07SCDD002 intersecting 6.1 metres @ 3.08% zinc from 28.4 metres. This intercept requires follow up exploration with a gravity and Induced Polarisation survey.



## Mt Regal (Fox owns 100% of mineral rights, E47/1202)

## • Mt Regal - VTEM Anomaly

Mt Regal hosts a late time VTEM anomaly in ultramafic rocks. This anomaly may be indicative of the presence of massive sulphides and requires a ground EM survey to better define the VTEM results and to generate potential drill targets.

# • Mt Regal - Gold Prospect

Anecdotally a significant number of gold nuggets have been collected from the surface by prospectors at "Bernie's Patch" which is a well-known West Pilbara prospecting area. Fox has previously undertaken a limited RAB drilling program in this area. Large portions of the tenement area remain untested.

Significant drill intercepts include:

- **15m @ 1.92** g/t Au, from 1m down hole, 10MRRAB182 including **3m @ 3.88** g/t Au from 13m down hole depth, finished in mineralisation
- 1m @ 8.39 g/t Au, from 21m down hole, 10MRRAB140
- 3m @ 4.20 g/t Au, from 2m down hole, 10MRRAB016

#### Mt Regal - Base Metals Prospectivity

There are a number of rock chip samples from Mt Regal that report elevated base metals geochemistry. Mt Regal also hosts a number of historic airborne EM anomalies that require follow up testing.

# • Mt Regal - Quarry Rock

The Mt Regal tenement hosts a large exposure of rock that is suitable for various industrial purposes for engineering projects around Karratha. Applications for the conversion of part of Mt Regal to mining licences are underway. Once the applications are granted, there is an immediate cash benefit to the Company and a potential future royalty cash stream once operations commence within the new mining leases. As part of the agreements Fox Radio Hill retains 100% of mineral rights.



# Table 5: MINERAL RESOURCE ESTIMATES7

# AS AT 30 JUNE 2014 and reported to the ASX by Fox Resources Limited.

#### **NICKEL-COPPER RESOURCE ESTIMATES**

Resource Area	Mineralisation	Classification	Tonnes	Ni %	Cu %	Contained Ni (t)	Contained Cu (t)
Radio Hill <sup>1</sup>	Primary Sulphide	Indicated	1,980,000	0.61	1.04	12,078	20,592
Radio Hill <sup>1</sup>	Primary Sulphide	Inferred	2,040,000	0.42	0.73	8,568	14,892
Total			4,020,000	0.51	0.88	20,646	35,484

## **COPPER-ZINC RESOURCE ESTIMATES**

Resource Area	Mineralisation	lisation Classification		Cu %	Zn %	Contained Cu (t)	Contained Zn (t)
West Whundo <sup>2</sup>	Primary Sulphide	Measured	386,000	1.2	1.9	4,632	7,334
West Whundo <sup>2</sup>	Primary Sulphide	Indicated	259,000	1.1	1.7	2,849	4,403
Whundo <sup>3</sup>	Primary Sulphide	Measured	304,000	1.3	0.1	3,952	304
Whundo <sup>3</sup>	Primary Sulphide	Indicated	598,000	1.0	0.6	5,980	3,588
Whundo <sup>3</sup>	Primary Sulphide	Inferred	140,000	0.8	0.2	1,120	280
Total			1,687,000	1.10	0.94	18,533	15,909

## ZINC MINERAL RESOURCE ESTIMATES

Resource Area	Mineralisation	Classification	Tonnes	Zn %	Cu %	Contained Zn (t)	Contained Cu (t)
Whundo⁴	Primary Sulphide	Measured	94,000	0.6	-	564	-
Whundo⁴	Primary Sulphide	Indicated	249,000	1.2	1	2988	-
Whundo⁴	Primary Sulphide	Inferred	78,000	1.1	1	858	-
Ayshia⁵	Primary Sulphide	Measured	150,000	2.4	0.5	3600	750
Ayshia⁵	Primary Sulphide	Indicated	344,000	3.3	0.5	11352	1720
Ayshia⁵	Primary Sulphide	Inferred	273,000	1.3	0.3	3549	819
Total			1,188,000	1.93		22,911	
		Including	767,000		0.43		3,289

## MT OSCAR MAGNETITE RESOURCE ESTIMATE

Domain	Class	Tonnage (Mt)	Head Fe (%)	Mass Recovery (%)	Conc Fe (%)	Conc SiO₂ (%)	Conc Al <sub>2</sub> O <sub>3</sub>	Conc P (%)	Conc LOI (%)
Mag Anomaly 16	Indicated	43	33.6	32.8	58.6	14.2	0.80	0.036	-0.34
	Inferred	32	33.3	10.4	60.3	12.7	0.73	0.036	-0.95
Mag Anomaly 2 <sup>6</sup>	Indicated	40	33.9	20.0	62.9	9.9	0.40	0.022	-1.16
	Inferred	11	36.1	33.7	60.3	13.3	0.56	0.037	-1.31
Total		126	33.8	23.1	60.5	12.4	0.63	0.032	-0.84

Note: Totals may not add up due to rounding

All Resources have been estimated to a JORC 2004 standard, unless otherwise stated. Notes relating to cut-off grades appear below:

- 1. 2009 estimate (Snowden) Cutoff grade 0.5% Ni in Ni dominant material, and 0.5% Cu in the Cu dominant hanging wall
- 2. 2006 estimate (RSG Global) Cutoff grade 0.5% Cu or 0.5% Zn. The Measured resource has been depleted from the RSG estimate by 20,000t based on company mining records.
- 3. 2007 estimate (Coffey Mining) Cutoff grade 0.4% Cu or 0.4% Zn
- 4. 2006 estimate (RSG Global) Cutoff grade 0.4% Zn
- 5. 2009 estimate (Golder Associates) Inferred Mineral Resource at Fe cut-off grade of 20%
- 6. 2014 estimate (ROM Resources) estimated according to JORC code (2012)
- $\hbox{7. As per Fox Resources ASX Annual Report to Shareholders 2014.}\\$

In accordance with Listing Rule 5.23.2, Artemis confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcement referred to above, and that in the case of mineral resources that all material assumptions and technical parameters underpinning the estimates in the announcement referred to continue to apply and have not materially changed.



#### **BACKGROUND INFORMATION ON ARTEMIS RESOURCES**

Artemis Resources Limited is a resources exploration and development company with a focus on its prospective West Pilbara (gold, base metals, platinum and platinum group elements) and Mt Clement-Paulsens (gold) project (Figure 1) in Western Australia. On 16 December 2016, Artemis announced the signing of a binding conditional agreement ("Agreement") with Fox Resources Limited ("Fox") for a 3 month exclusive option to buy their fully permitted AGIP 425,000tpa Radio Hill nickel and copper operations, processing plant and associated mining and exploration tenements with significant existing JORC 2004 and 2012 compliant resources of Nickel, Copper and Zinc situated within a 15 km radius of the Radio Hill plant, for a total consideration of \$3.5 million. 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 <a href="https://www.artemisresources.co.au">www.artemisresources.co.au</a> or contact:

**Investors / Shareholders** 

Edward Mead Executive Director

Telephone: +61 407 445 351 Email: emgeocorp@gmail.com Media

David Tasker

Professional Public Relations Telephone: +61 433 112 936 Email: <u>David.tasker@ppr.com.au</u>

#### **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 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 Mead 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.