

## About Artemis Resources

Artemis Resources is an ASX-listed mineral exploration company with a focus on gold:

### Key Projects

#### Gold

Mt Clement (WA)  
Yandal (WA)

#### Rare Metals

Yangibana (WA)  
Buchanan's Creek (QLD)

#### Uranium

Mundong Well (WA)  
TAG II/IV (West Africa)

Artemis' corporate strategy is to maximise shareholder returns through a combination of exploration success and quality project acquisition.

The Company's focus on gold is viewed as an important growth strategy for the company.

### Australian Securities Exchange

Code: ARV  
Options: ARVOB

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## ASX Announcement

24<sup>th</sup> January 2011

### New Mineralized Zone Discovered at Mt. Clement

- A new mineralised zone discovered with 1.47m @ 1.20g/t gold, 1.0m @ 13.5g/t silver and 0.10% copper **150m west of Mt Clement** mineralisation
- 5.0m @ 275g/t silver (5.73g/t gold equivalent)<sup>1</sup> and 5.18m @ 1.60g/t gold **intersected 40m below** the main High Grade Zone
- 1.0m @ 2.80g/t gold and 1.3m @ 17.5g/t silver (0.57oz/t) located **70m further south of Mt Clement** mineralisation
- 1m @ 12.50g/t silver (0.40oz/t) **extends mineralisation 45m east of Mt Clement** mineralisation
- 2.0m @ 12.95g/t gold, 882.50g/t silver and 3.48% copper (final analyses of ARMCRC013). This is a gold equivalent<sup>1</sup> value of 2.0m @ 39.04g/t (including silver and copper credits).

Australian resources company, Artemis Resources Ltd. (80%) (**ASX: ARV**), as operator of the Mt Clement JV with Northern Star Resources Ltd. (20%) (**ASX:NST**), is pleased to announce that final assay results from step-out extension drill holes at its Mt Clement Gold Project have increased the prospectivity of the Project substantially. Drilling during December 2010 concentrated on step-out holes away from the main area of mineralisation at Mt Clement and these holes have intersected strongly anomalous mineralisation up to 2.91g/t gold and 942g/t silver (19.62g/t gold equivalent)<sup>1</sup> over a 1m interval.

<sup>1</sup> Using Ag Price \$28.35/oz, Au Price \$1361/oz, Cu Price \$9690/t as at 18/01/2011 and taking no account of mining or metallurgical recoveries.

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In December 2010, Artemis Resources completed the second phase of reverse circulation (RC) and diamond drilling (DD) at its Mt Clement Gold Project in Western Australia. The aim of this drilling program was to explore for gold, silver and copper mineralisation. In particular, the drilling aimed to extend the high-grade mineralisation ("Type 1") both along strike and at depth, as well as in-filling and extending the near-surface oxide gold potential ("Type 2" mineralisation). The second round of drilling has discovered a new mineralised zone at Mt Clement and significantly adds to the target generation potential of the Project.

### **New Mineralised discovery 150m West of Previous Intersections**

A "wildcat" target 200m west of the High Grade Zone was drilled by diamond hole ARMCRCD001. This hole successfully intersected mineralisation at 228.53m down-hole and represents the deepest hole drilled so far at Mt Clement (see photographs below). Results from this hole include 1.47m @ 1.20g/t gold, 1.0m @ 13.5g/t silver and 0.10% copper. **This new discovery of mineralisation occurs 150m west of all previous intersections at Mt Clement** and increases the potential of Mt Clement to host multiple, undiscovered zones of gold, silver and copper mineralisation.



*Two photographs of diamond core from Hole ARMCRCD001 showing sulphide mineralisation hosting gold, silver and copper. This hole was drilled 200m west of the main mineralisation at Mt Clement and represents a significant step-out discovery of a new zone of mineralisation.*

### **Confirmation High-Grade Zone Extends at least 40m Deeper and 70m South**

Drill hole ARMCD001 returned 5.0m @ 275g/t silver (8.84ounces/tonne) from a down-hole depth of 111m. Using a gold price of \$1361/Oz and a silver price of \$28.35/Oz and taking no account of metallurgical recovery, this has a dollar value equivalent to 5.73g/t gold over the 5m interval. In addition to this, the hole also encountered 5.18m @ 1.60g/t gold from 109m down-hole and 2.18m @ 0.97% copper. Hole ARMCRCD004 (drilled to the southeast of this hole) intersected similar values including 5.2m @ 53g/t silver (1.7ounces/tonne) and 2.26m @ 1.81g/t gold. Both of these holes successfully confirmed that **the High Grade Sulphide Zone continues at least 40m deeper than all previous intersections.**



ARMCRCD002 is the furthest south any drill hole has been drilled at Mt Clement. The results from this hole include 1.0m @ 2.80g/t gold at 102.20m depth and 1.3m @ 17.5g/t silver (0.57ounces/tonne) intersected at 109.50m down-hole. These intersections provide evidence that **gold and silver mineralisation continues 70m south of all previous intersections** at Mt Clement.

A second "wildcat" target to the east of the known mineralisation at Mt Clement was drilled with 2 holes – ARMCRRC015 and ARMCRRC016. These holes intersected similar values including 1m @ 12.50g/t silver (0.40ounces/tonne) and 2.0m @ 18.45g/t silver (0.6ounces/tonne) respectively. These drill holes, designed to test for extensions to the mineralisation towards the east, **successfully extended the mineralisation 45m east of all previous intersections** at Mt Clement.

Artemis' drill hole ARMCRRC013 at Mt Clement was reported to intersect high grade gold, silver and copper in an ASX announcement dated 9<sup>th</sup> December 2010. In this announcement, preliminary results for gold, silver and copper were quoted as 4.0m @ 9.33g/t gold, +500g/t silver and +2% copper. Final results have now been returned from the laboratory and these results include **2m @ 12.95g/t gold, 882.5g/t silver (28.4oz/t) and 3.48% copper** between 97m and 99m depth.

"This second phase of drilling has been very successful and confirmed the continuity of high grade mineralisation within the Main Zone. The results provide confidence that mineralisation extends well beyond the previously-perceived limits of mineralisation. The success of ARMCRCD001 opens up a new area for on-going exploration for high grade gold, silver and copper" said Mr David Price, Executive General Manager of Artemis Resources.

"The Company will continue to increase the value of its gold inventory both at Mt Clement and at Yandal through further exploration. Artemis sees potential for both projects to move towards open cut mining through its continued vigorous approach to exploration", Mr. Price added.

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## **ABOUT ARTEMIS RESOURCES**

Artemis Resources Limited is a maturing resources exploration company with a focus on its prospective Mount Clement and Yandal gold projects in Western Australia. The Company also has exposure to rare earths through its Yangibana (Western Australia) and Buchanan's Creek (Queensland) projects and Uranium through its Mundong Well and TAG II/IV projects in Western Australian and West Africa respectively. Its projects were targeted because of their quality, exploration potential and close proximity to existing important deposits or producing mines.

The Mount Clement Gold project comprises three mining leases and two exploration licences over 14.5km<sup>2</sup> in the Ashburton area of Western Australia, approximately 35km from the operating Paulsen's Gold Mine owned by ASX-Listed Northern Star Resources Limited. As part of its recent acquisition of the nearby Paulsen's Gold Mine, Northern Star Resources also acquired a 20% free-carried interest (to Feasibility Stage) in the 3 Mining Leases at Mt. Clement.

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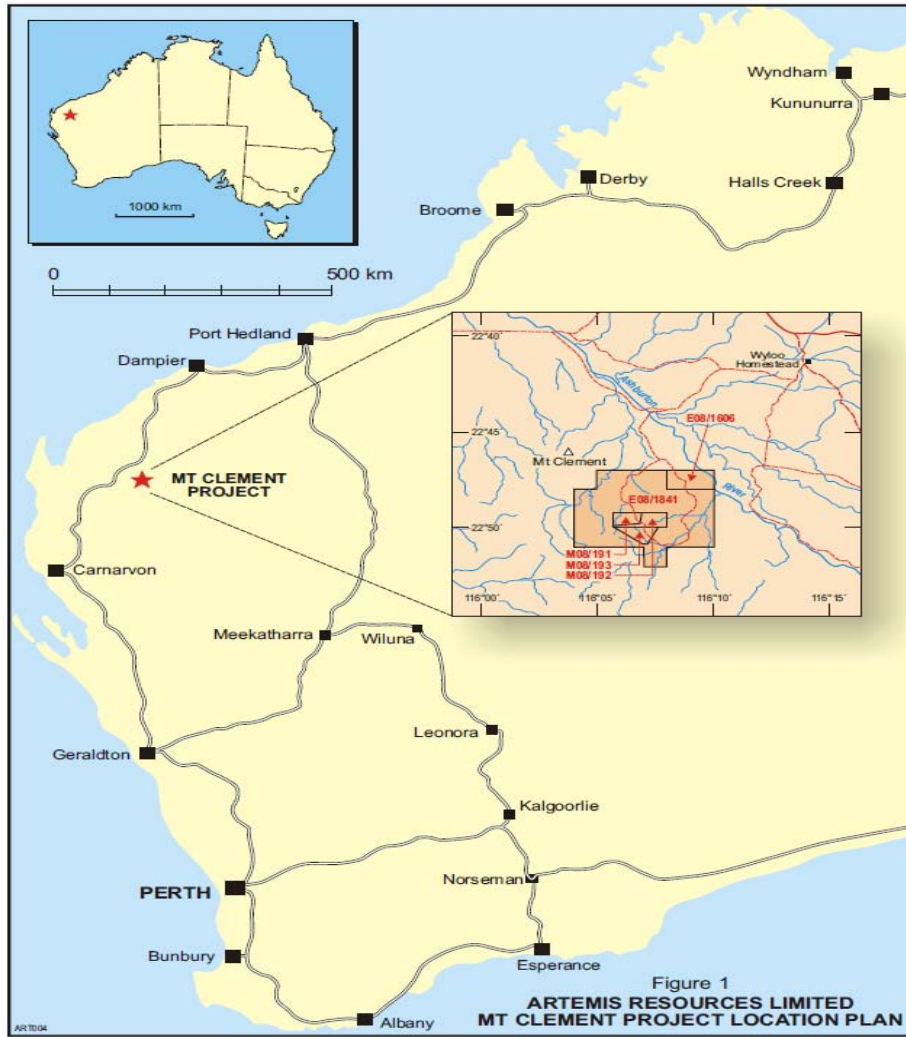


Figure 1: Location Map of the Mt Clement Gold Project in Western Australia



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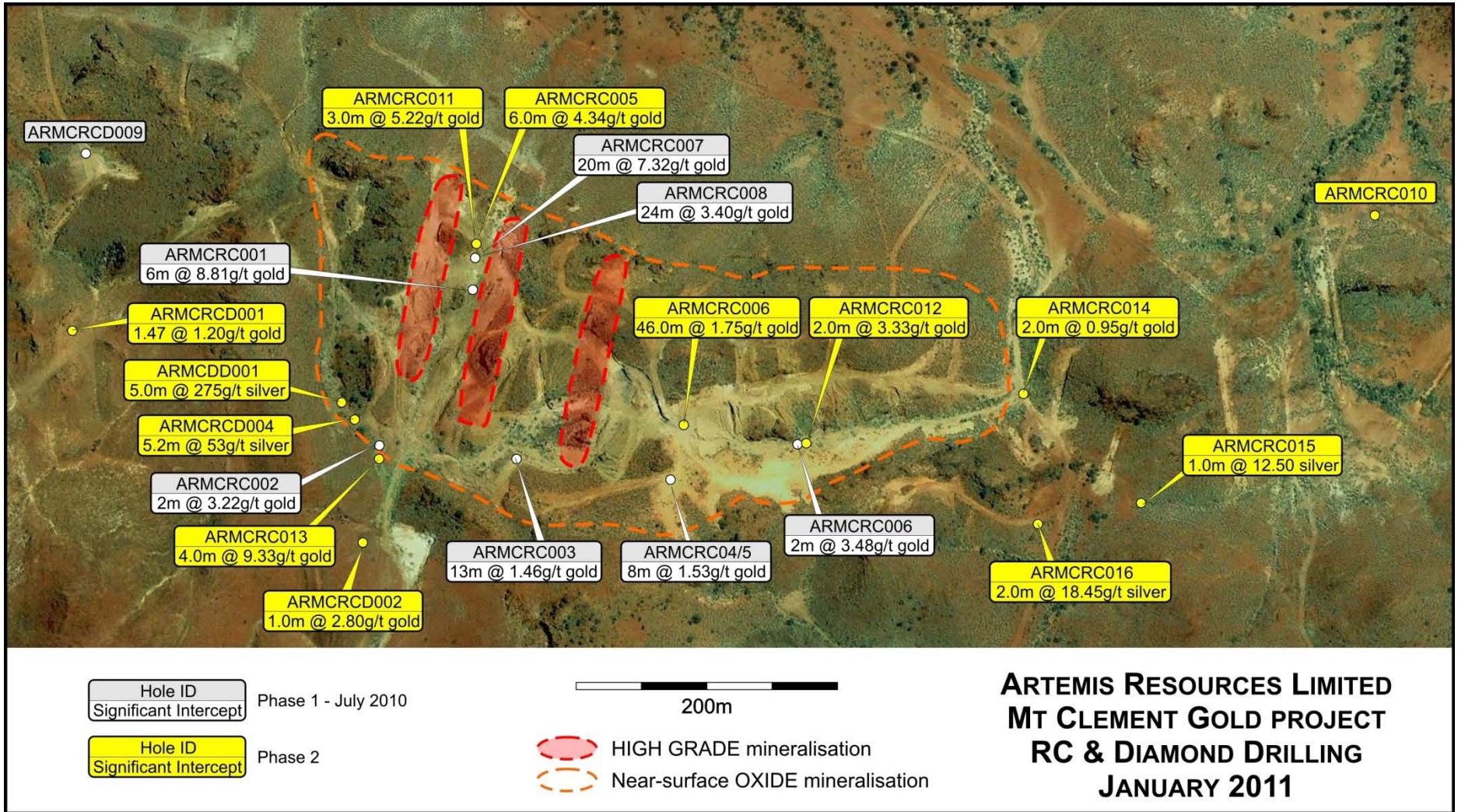


Figure 2: Image showing the location of drill holes and results - Mt Clement – January 2011

SAMPLE DESCRIPTION	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	Cu (%)
AMC013-98	97.00	98.00	1.00	13.30	997.0	3.15
AMC013-99	98.00	99.00	1.00	12.60	768.0	3.80
AMC013-100	99.00	100.00	1.00	5.61	272.0	1.35
AMC013-101	100.00	101.00	1.00	5.81	406.0	1.95
AMC013-102	101.00	102.00	1.00	2.46	116.0	0.61
AMC013-103	102.00	103.00	1.00	1.13	57.5	0.31
AMC013-104	103.00	104.00	1.00	1.33	123.0	0.40
AMC013-105	104.00	105.00	1.00	0.82	41.5	0.20
AMC013-106	105.00	106.00	1.00	1.30	40.7	0.23
AMC013-107	106.00	107.00	1.00	3.13	70.0	0.39
AMC013-108	107.00	108.00	1.00	4.87	84.9	0.51
AMC014-09	8.00	9.00	1.00	1.38	0.6	0.04
AMRD01-148	228.53	229.27	0.74	1.34	<0.5	0.00
AMRD01-150	229.77	230.00	0.23	1.27	0.6	0.00
AMRD01-161	237.00	237.87	0.87	1.31	2.5	0.02
AMRD02-113	102.20	103.20	1.00	2.79	2.1	0.04
AMDD053	40.00	41.00	1.00	3.19	1.4	0.02
AMDD110	94.00	95.00	1.00	1.84	1.9	0.03
AMDD111	95.00	96.00	1.00	1.59	22	0.10
AMDD112	96.00	97.00	1.00	2.35	942	1.05
AMDD113	97.00	98.18	1.18	1.26	324	0.90
AMRD004-103	93.40	94.00	0.60	0.01	177	0.17
AMRD004-104	94.00	94.90	0.90	<0.01	20.5	0.00
AMRD004-106	95.30	96.40	1.10	<0.01	57.1	0.00
AMRD004-107	96.40	97.10	0.70	<0.01	74.7	0.00
AMRD004-108	97.10	97.50	0.40	<0.01	33.9	0.01
AMRD004-151	149.90	150.50	0.60	2.44	0.6	0.00
AMRD004-152	150.50	151.00	0.50	2.91	1.9	0.01
AMRD004-153	151.00	151.45	0.45	1.44	<0.5	0.00

**Table1: Detail of best drilling results from holes ARMCR013, ARMCR014, ARMCRCD01, ARMCRCD02, ARMCRCD01 and ARMCRCD004 Mt Clement – Nov/Dec 2010**

**Mt Clement Gold Project**  
**Drilling Statistics November/December**  
**2010**

Hole ID	N (mN_94)	E (mE_94)	Dip (°)	Azi (°)_94	RC (m)	DD (m)	EOH (m)
ARMCRC011	7474958	408726	-53	300	157.00	0.00	157.00
ARMCRC012	7474818	408997	-65	190	137.00	0.00	137.00
ARMCRC013	7474807	408654	-60	047	150.00	0.00	150.00
ARMCRC014	7474862	409163	-65	000	102.00	0.00	102.00
ARMCRC015	7474773	409247	-60	000	98.00	0.00	98.00
ARMCRC016	7474753	409159	-60	340	119.00	0.00	119.00
ARMCRCD001	7474896	408413	-55	023	114.00	179.10	293.10
ARMCRCD002	7474744	408639	-55	035	72.00	233.80	305.80
ARMCRCD003	7474867	408606	-50	330	100.00	0.00	100.00
ARMCRCD004	7474839	408632	-60	040	66.00	143.90	209.90
ARMCRCD005	7474958	408727	-53	320	100.00	0.00	100.00
ARMCRCD006	7474830	408893	-60	015	100.00	0.00	100.00
ARMCDD001	7474860	408621	-55	025	0.00	228.00	228.00
RC010/DT001	7474999	409436	-55	181	120.00	83.20	203.20
					<u>1435.00</u>	<u>868.00</u>	<u>2,303.00</u>

**Table2: Drilling statistics for November 2010 RC/DD drilling at Mt Clement**

*The information in this document that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr. David W. Price, who is a Fellow of The Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists. Mr. Price 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 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Price, who is an officer of the Company, consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*