



MARCH 2010

QUARTERLY REPORT

30 APRIL 2010

ABOUT ARTEMIS RESOURCES

Artemis Resources Limited has mineral exploration projects with a focus on the following high value commodities:

- Gold - Mt Clement and Yandal (WA)
- Rare Earths & Metals (Yangibana WA) and (Buchanan's Creek Qld)
- Uranium (Mundong Well and Cambridge Creek WA) and TAG II and IV in Niger

The Company's focus on gold and rare metals is viewed as a strategic position for the company. The fundamental and sustained high value of gold and the increasing use and therefore demand for rare metals provides the company with exposure to a high value and expanding future.

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Executive General Manager

ARTEMIS ADVANCES PROJECTS THROUGH EXPLORATION

KEY POINTS

- **Shallow auger drilling underway at Yandal Gold Project Western Australia**
- **Geological and structural appraisal of Mt. Clement Gold Project commenced**
- **Completion of Buchanan's Creek-Grants Gully Lithium-Tantalum acquisition (100%) and application for additional exploration ground**
- **Visit by world-renowned rare earth specialist, Dr. Tony Mariano**
- **Commencement of stratigraphic drilling at Tagaza Uranium Joint Venture project in Niger, West Africa**

Yandal Gold

Artemis Resources Limited commenced an auger drilling programme at the Company's 100%-owned Yandal Gold Project in the Yilgarn Gold Province of Western Australia.

Previous exploration undertaken in the area being tested by the current auger drilling program returned encouraging high grade gold surface rock-chip samples and drill intercepts which has encouraged the continuation of exploration. Past results include:

- **35.0g/t Au**
- **13.80g/t Au**
- **34.80g/t Au**
- **7m @ 11.49g/t Au** in drill hole BRC029, between 17-24m down hole at the Forked Stick Prospect.



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Yandal Gold (Continued)

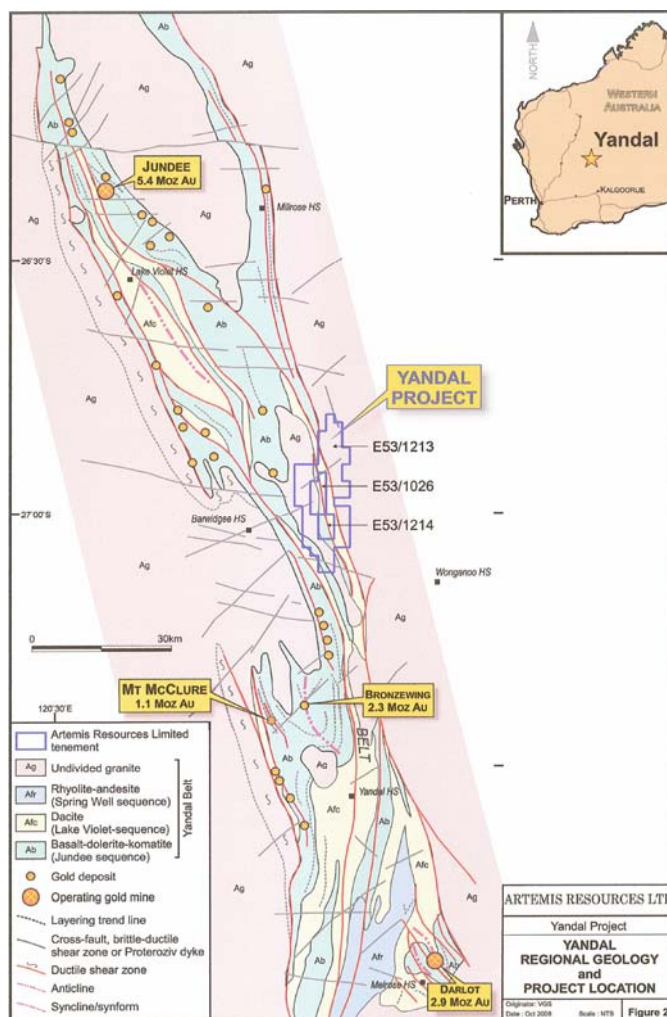
Two areas of gold mineralisation within the Artemis tenements have been identified by earlier explorers at Yandal; namely the Slav Well and Lowlands Gold Deposits.

Previous explorers published what was categorised at the time as an Inferred Resource over the Lowlands and Slav Well Deposits in 2000. These estimates however, were not reported in accordance with the 2004 JORC Code for Reporting of Mineral Resources and Ore Reserves¹:

- **320,000t grading 2.29g/t Au at the Lowlands Deposit**
- **39,600t grading 6.47g/t Au at the Slav Well Deposit**

Part of Artemis' exploration strategy at Yandal is to improve the level of knowledge in an effort to achieve a resource which does comply with the JORC Code and with this in mind, the current auger drilling is focused on testing under-explored ground between the Lowlands and Slav Well Deposits with the aim of extending the mineralisation.

The Yilgarn Gold Province has hosted a number of multi-million ounce gold deposits and mines in the 1980's and 1990's, including the Bronzewing Gold mine which is expected to be re-opened shortly. A north-west trending fault in the Jundee Sequence of basalt/dolerite units hosts both areas of mineralisation within the Company's tenements and extends beyond the licences through the Jundee Gold Mine (5.4MOzs gold) 90kms to the north and the Bronzewing Gold Mine (2.3MOzs gold) 50kms to the south.



Location of the Yandal Gold Project owned 100% by Artemis Resources Limited

¹ No exploration has subsequently been conducted that would add any certainty to the quoted figures which were estimated and published by Acclaim Exploration NL on the ASX. Accordingly, these estimates should not be misunderstood or misconstrued as estimates of Mineral Resources. The potential quantity and grade is conceptual in nature and there have been insufficient results received from drilling completed to date to define a Mineral Resource compliant with the JORC Code (2004) guidelines. Furthermore, it is uncertain if further exploration will result in the determination of a Mineral Resource.

Yandal Gold (Continued)

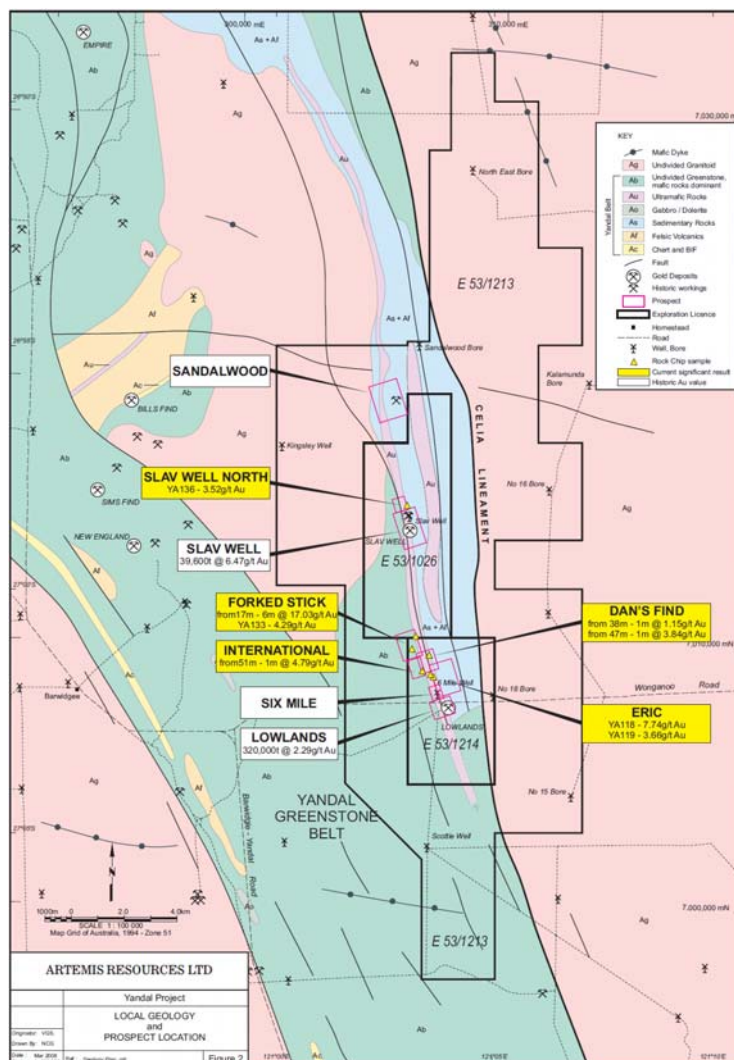
Artemis's gold project lies within the same rock units as Bronzewing and Jundee but has not been adequately evaluated or explored since the 1980's. With the current gold price above US\$1000 per ounce, Artemis is keen to delineate a gold resource at Yandal with the possibility of utilising existing mining processing facilities and infrastructure in the area to potentially develop an economic mine.

Artemis is confident that with modern exploration techniques the drilling program will provide drilling targets which may lead to discovering extensions to the existing areas of gold mineralisation. Reverse circulation drilling is planned to fully test any anomalies identified from the auger drilling program in progress.

Bamboo Creek Prospect

Results were received from a short rock-chip sampling program at Bamboo Creek in the Pilbara WA, confirming that the favourable iron-rich horizon known to host the Spinifex Ridge Iron Ore Project, owned by Moly Mines Ltd to the west, extends across the northern boundary of Artemis's tenement E 45/2596.

A program of 40 rock samples collected late in 2009 has returned encouraging results with 35% of samples containing +35% Fe and 2 samples above 50% Fe. The Company views these results as highly encouraging. Further work is planned to test the remainder of the tenement in areas considered prospective for gold, copper and molybdenum.



Prospects and outstanding exploration results at Artemis' Yandal Gold Project.

Buchanan's Creek-Grants Gully (100%)

Artemis has significantly expanded its interests at the Grants Gully/Buchanan's Creek project by applying for 93km² of exploration ground considered highly prospective for tantalum (Ta), lithium (Li), niobium (Nb) and gold (Au).

The ground being applied for (EPM18490 "Mosquito Creek") immediately surrounds Artemis' Grant's Gully/Buchanan's Creek Prospects in North Queensland and significantly strengthens the company's rare metal-lithium portfolio. This ground application provides Artemis with the largest cohesive tenement holding prospective for rare metals-lithium in the Georgetown area of North Queensland.

The Mosquito Creek tenements are dominated by Proterozoic-age rocks which are known to host swarms of pegmatite dykes containing Ta, Li and Nb at both Grant's Gully/Buchanan's Creek. Previous exploration at Buchanan's Creek has proved highly successful with drill hole BCDH8 intersecting 10m @ 1.37% Li and BCDH12 intersecting 8m @ 1.39% Li. Hole BCDH13 encountered 7m @ 0.13% Ta.

Grants Gully/Buchanan's Creek is recognised as one of Australia's most significant rare metal - lithium projects. In March 1996, a 2-tonne sample of tantalite concentrate was shipped to the Sons of Gwalia-owned Greenbushes Processing Facility in Western Australia. This concentrate was confirmed to grade 34.04% Ta₂O₅, 21.68% Nb₂O₅ and 0.825% SnO₂. Furthermore, it was noted that the concentrate had no deleterious elements (including radioactive ones) and that very clean tantalite and cassiterite can be extracted.

The strategic decision to apply for this prospective ground further reinforces Artemis' commitment to the Rare Metal Industry and provides the Company with good ground-holding in a region with demonstrated significant Ta/Li/Nb mineralisation. Lithium is used in mobile phones and long-life batteries whilst Tantalum is used in high-strength steel, optics and medical applications. Niobium is commonly used in stainless steel and in superconductive magnets for power generation. All of these applications are considered essential for future generations and Artemis Resources is aligning itself for continued strong growth in demand for such essential elements.

Re-appraisal of Mt. Clement Gold Project (80%)

Artemis has recently commenced a re-appraisal of its Mt. Clement Gold Project in Western Australia. A total of 155 drill holes have been drilled previously at Mt. Clement and the data obtained from this drilling is being collated into a 3-dimensional digital model. The purpose of this model is to clarify the geological and structural setting for the gold and to identify additional drilling targets. Artemis is planning a drilling campaign based on the results of the modeling work in progress.

Visit by Dr. Tony Mariano

During April 2010, Artemis Resources hosted a visit by Dr. Tony Mariano to its Yangibana Rare Earth Project in Western Australia. During his site visit, Dr. Mariano commented on the geochemical and mineralogical aspects of the deposit and highlighted the anomalous Neodymium which occurs at Yangibana.

Dr. Mariano has collected a number of rock samples from Yangibana to complete cathodoluminescent and mineralogical studies. Artemis welcomes Dr. Mariano as a Special Advisor to the Board and is delighted to have access to the extensive knowledge Dr. Mariano has accumulated over more than 50 years of studying rare earth element projects throughout the world.

Tagaza Drilling, Niger

Artemis has commenced its drilling exploration program at its Joint Venture project in Niger, West Africa during the quarter. The Tagaza Uranium Project is located within one hundred kilometers of two operating uranium mines producing 7.5% of world uranium supply from Africa's highest-grade uranium ores and is situated immediately adjacent to the Chinese-owned Teguidda uranium mine which has an estimated resource of around 15,000 tonnes U₃O₈.

The Joint Venture is currently conducting a stratigraphic drilling program to confirm whether the Agadez Formation, which hosts uranium mineralisation at Teguidda, underlies the Joint Venture tenements at depth. The Joint Venture tenements are traversed by the east-west trending Azelik fault, which plays an important role in the disposition of uranium mineralization in the region and is known to upthrust the Agadez Formation at the neighbouring Teguidda Mine.

The Joint Venture is currently undertaking a first-stage drilling program and trenching to test the depths, geometry and tenor of any uranium mineralisation within organic-bearing fluviatile sandstones known to occur at various levels in the stratigraphy. The first phase of Artemis's programme is aimed at better understanding the geology of the project area and to assist the exploration team in better defining the uranium targets.

Guy Robertson
Company Secretary
30 April 2010

ARTEMIS RESOURCES - MARCH 2010 QUARTERLY REPORT

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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.