Ardea Resources Ltd: Extensive Gold Anomalism at Goongarrie Nickel Cobalt Project

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Perth, Australia - The Big Four Gold Prospect is located within the Bardoc Tectonic Zone (BTZ) at Goongarrie and offers an exceptional gold exploration opportunity for Ardea Resources Ltd. (ASX:ARL) (OTCMKTS:ARRRF) ("Ardea" or "the Company").

- In excess of 15 kilometres of strong gold anomalism are present in the laterites of the Goongarrie Nickel Cobalt Project (GNCP).

- Anomalies at Goongarrie significantly exceed the strength of laterite gold anomalies typical of the region.

- The GNCP seems to be globally unique in the close spatial relationship of nickel-cobalt-scandium laterite mineralisation overlying orogenic gold mineralisation, here hosted within the Bardoc Tectonic Zone.

- New drilling results include:

o ABFA0245: 6 m at 2.0g/t Au from surface.

o ABFA0188: 24 m at 0.8g/t Au from 12 m,

- Assessment of historic results in light of the recent drilling includes:

o AGSR0076: 2 m at 1.01g/t Au from 56 m.
and 8 m at 2.22g/t Au from 64 m.

- Work is underway to design follow up drill programs to test the extent of the underlying gold mineralisation and will include 80x40m pattern RC drilling over all nominated aircore anomalies.

Commenting on the gold opportunity at Goongarrie, Ardea CEO Andrew Penkethman said:

"The stacking of the nickel-cobalt-scandium laterite mineralisation upon the gold being located in the crustal-scale Bardoc Tectonic Zone appears to be globally and geologically unique. The extent and strength of gold anomalism as a conceptual target is exceptional.

Though much work remains to define the full gold potential, the possibility of multiple revenue streams from nickel, cobalt, scandium and gold at Goongarrie is tantalising. Forthcoming integrated drilling programs to define gold resources will complement and potentially add significant value to the economics of our flagship Goongarrie Nickel Cobalt Project."

Gold Anomalism and Recent Results from Big Four

Ardea's Goongarrie Nickel Cobalt Project (GNCP) is unique among the world's lateritic nickel-cobalt deposits in that it has developed on ultramafic rocks that are within and a part of a major, crustal-scale gold-mineralised structure being the BTZ. The BTZ hosts, from south to north, the Paddington, Goongarrie, Comet Vale and Menzies gold mining centres.

The latest Ardea drill results from the Big Four area, as well as having reassessed historic data, shows that strong, laterally extensive gold anomalism is present beneath the full 15 km strike length of the nickel-cobalt orebodies of the GNCP. The exceptional thickness and grade of the GNCP laterite is interpreted to be directly attributable to deep and intense weathering along BTZ bedrock shear structures, particularly at the eastern contact of the Walter Williams Formation (WWF) laterite host rock with the stratigraphically overlying Siberia Komatiite.

These same structures in the current studies have had extensive gold anomalism confirmed (refer Figure 1 in link below).

The areas east of the WWF are the preferred sites for GNCP infrastructure and this round of drilling has highlighted multiple zones for systematic follow-up gold RC drilling. Just as importantly, selected areas that

are unmineralised have been identified as suitable future infrastructure sites.

Gold structures within the GNCP

During the course of the 2018 Pre-Feasibility Study (PFS) and Expansion Study programs, several parallel work streams all indicated a strong structural control on nickel laterite mineralisation (refer Pamela Jean Deeps, ASX announcement 8 October 2018).

These structures also control the distribution of gold mineralisation within the GNCP:

- 3D ore body modelling confirmed a dominant 345deg trend to laterite mineralisation, but with a strong overprinting 3000 "gold trend" leading to particularly thick, deep nickel-cobalt-scandium laterite mineralisation.

- An ultra-detailed airborne magnetic survey flown by Ardea to quantify potential bedrock ground-water hosting structures highlighted the association of the 300deg trending bedrock structures with ore-grade nickel laterite and also known gold anomalism.

- Pump testing process water targets from pit-dewatering defined high water volumes in association with the deep structures at Pamela Jean, which is also a zone of anomalous gold intercepts.

- Multi-element geochemistry identified discrete alkaline intermediate dykes associated with bedrock shear structures with anomalous gold. These structures are closely related to overlying high grade laterite mineralisation.

On the basis of identifying the gold anomalism associated with bedrock structures, Ardea initiated an aircore drilling gold exploration program at Big Four within the GNCP.

Results of the recent Big Four gold drilling program

As a first-pass gold exploration program, 265 aircore holes for 4,861 m (average 18.3 m) were drilled to blade refusal at the Big Four Prospect (refer Figure 1 in link below).

The Big Four drill program has confirmed gold mineralisation at Ardea's Big Four gold mine and historic gold prospects at Zeus and Dionysus, and furthermore has identified numerous new anomalies within the stratigraphically overlying Siberia Komatiite mafic sequence and Black Flag Formation felsic volcaniclastics to the east of the WWF ultramafic sequence.

Sampling was undertaken as 6m composites to reduce assay costs, but thereby lowering the sensitivity of the program. As such, anomalism is defined by lower grades as dilution by non-mineralised rock is expected over such broad sample intervals.

Despite this lowered sensitivity, the drilling has identified a number of highly anomalous gold intercepts that will require further investigation. For reference, gold anomalies of 20-40 parts per billion (or 0.02-0.04 g/t) within a laterite profile are commonly the basis for further gold exploration in the Eastern Goldfields Inc. of Western Australia.

The intensity of the gold anomalism mapped throughout the GNCP and surrounds is at least 10 times the values typical of the region's gold-anomalous laterites (refer Figure 1 in link below).

Results of the recent GNCP Big Four drilling include:

- ABFA0245, 6m at 2.0g/t Au from surface to end of hole (EOH).

- ABFA0188, 24m at 0.8g/t Au from 12m.

- ABFA0197, 12m at 0.3g/t Au from 78m to EOH.

- ABFA0209, 42-48m, 6m at 0.4g/t Au from 42m, and 18m at 0.1g/t from 66m to EOH.

- ABFA0152, 4m at 0.3g/t Au from 6m to EOH.

The drilling has identified a clearly alkaline dacitic volcaniclastic stratigraphy within the predominant mafic volcanic suite which overlies the WWF. The feeder dykes for the dacitic flows are identically finger-printed as the dykes intersected in the WWF laterite drilling which show a strong spatial association with gold intercepts within the nickel laterite.

Work is ongoing to define the likely controls on mineralisation at each occurrence, which is utilising geochemical data in conjunction with interpretation of Ardea's proprietary high-resolution magnetic datasets and digitisation of historic data where available. Collation and integration of these datasets will enable the design of follow up drill programs to test these anomalies at depth.

As well as the main focUS Gold Corp. targets, the aircore drilling has identified geological settings prospective for nickel sulphide (Scotia nickel sulphide mine immediately east of Ardea GNCP tenure), Volcanogenic Massive Sulphide (VMS) of the Jaguar-Bentley style, nickel laterite in olivine cumulate facies of the Siberia Komatiite, magnesite in WWF and Siberia Komatiite, scandium-vanadium laterite and Rare Earth Elements (REE) in alkaline volcanics (refer Annexure A, B and C in link below).

Interrogation of historical datasets

Since their discovery, the lateritic deposits of the Goongarrie area have been extensively drilled and assayed for a range of elements, but only sporadically including gold. The desultory gold results were generally overlooked by previous explorers.

Recent interrogation and re-treating of the historic datasets by Ardea has identified numeroUS Gold Corp. anomalies (refer Figure 1 and 2 in link below). Gold mineralisation is present, for example, within and beneath the Elsie North nickel-cobalt deposit, to the west of the Pamela Jean nickel-cobalt deposit.

Significant intercepts include:

- AGSR0076, 2m at 1.01g/t Au from 56m and 8m at 2.22g/t Au from 64m (322422 mE, 6669680 mN)

- AGSR0200, 2m at 1.94g/t Au from 34m (322581 mE, 6669438 mN)

- GSRC0025, 5m at 0.59g/t Au from 18m (322545 mE, 6669355 mN)

- AGSR0077, 1m at 0.55g/t Au from 54m (322337 mE, 6669684 mN)

- AGSR0201, 4m at 0.35g/t Au from 52m (322338 mE, 6669840 mN)

Note that gold-anomalous drill-holes are dominantly from Ardea ("AGSR" labelling), reflecting the fact that Ardea is the first project holder to recognise the precious metal potential, and hence systematically assay for gold and its pathfinder elements in its drilling.

High-resolution aeromagnetic geological interpretation from Ardea's survey shows that there are distinct sets of late-stage faults that appear to control gold mineralisation within the GNCP, particularly at Elsie North. These sets are present throughout the full BTZ from Paddington to Menzies and appear to control gold distributions at the GNCP anomalies.

Elsie North will be a prime target for future Ardea follow-up gold drilling.

Goongarrie gold mining opportunities

There is the possibility of evolving mining operations at the GNCP, whereby development of nickel-cobalt-scandium open pits at Goongarrie effectively pre-strips material for the subsequent mining of gold beneath the laterite. However, much work is required to further define gold mineralisation at depth beneath the laterite deposits, to a level that would facilitate such sequential mining operations.

An opportunity exists as historic laterite drill exploration was shallow and did not seek to drill test below the saprock into the bedrock. Generally, as nickel and cobalt were the historic focus, no gold assays were completed on historic drill samples.

The presence of significant gold alteration systems and anomalism has only come about as a result of the detailed multi-element assay suite that Ardea uses in its GNCP research and development (R&D) programs.

Next steps

The gold targets identified in the Big Four aircore drilling are of a comparable magnitude to historic Eastern Goldfields Inc. RAB/aircore drill anomalies that have led to significant gold mine discoveries such as Tropicana and Kanowna Belle. Accordingly, systematic follow-up drilling is required at Big Four, including:

1. 80x40m pattern RC drilling over all nominated aircore anomalies.

2. Gold targets at Goongarrie South, specifically Elsie North, Pamela Jean and Patricia Anne will be RC drill

tested, but will be combined as confirmation exercises for GNCP nickel laterite and neutraliser studies.

3. Data from the historic Big Four gold mine drilling will be compiled to better quantify the exploration potential adjoining the old mine.

4. Subsidiary targets for magnesite neutraliser, VMS base metals and REE will also be further drill tested but are behind the gold targets in work priority (see Annexure A in link below).

To view the release with figures, please visit:
http://abnnewswire.net/lnk/7195A7LZ

About Ardea Resources Ltd:

Ardea Resources Ltd (ASX:ARL) (OTCMKTS:ARRRF) (FRA:A91) is an ASX listed resources company, with 100% controlled Australian based projects, prioritising a three-pronged value creation strategy which is:

- development of the Goongarrie Nickel Cobalt Project, which is part of the Kalgoorlie Nickel Project, a globally significant series of nickel-cobalt deposits which host the largest nickel-cobalt resource in the developed world, coincidentally located as a cover sequence overlying fertile orogenic gold targets;

- advanced-stage exploration at WA gold and nickel sulphide targets within the Eastern Goldfields Inc. world-class nickel-gold province; and

- the demerger of the NSW gold and base metal assets with planned in-specie share distribution, with projects located within the Lachlan Fold Belt world-class gold-copper province.

Source:

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