

21 February 2020

ASX : ARV

ATY : FRANKFURT

ARTTF : OTCQB

**GOLD FOCUSED**

ARTEMIS RESOURCES LIMITED IS A GOLD AND COPPER FOCUSED COMPANY WITH ASSETS IN THE WEST PILBARA AND THE PATERSONS RANGE OF WESTERN AUSTRALIA.

ARTEMIS HAS CONSOLIDATED A MAJOR LAND HOLDING IN THE WEST PILBARA AROUND THE 100% OWNED RADIO HILL PROCESSING PLANT AND INFRASTRUCTURE, STRATEGICALLY LOCATED 30 KM FROM THE CITY OF KARRATHA, THE POWERHOUSE OF THE PILBARA.

ARTEMIS ALSO HAS ~605 KM<sup>2</sup> IN THE PATERSONS RANGE WITH GOLD AND COPPER TARGETS 40KM FROM THE TELFER GOLD MINE AND SURROUNDING THE HAVIERON DISCOVERY BEING DRILLED BY NEWCREST.

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**PATERSON CENTRAL GEOCHEMISTRY PROGRAM****HIGHLIGHTS**

- Geochemistry program designed to test 7 targets at its 100%-owned Patersons Central project, that surrounds the exceptional Havieron Gold-Copper discovery.
- The 7 targets to be covered are a mixture of anomalies identified from gravity and magnetic surveys, with all surrounding Havieron.
- Geochemistry has been used successfully at Havieron and regionally, and helped identify the area being drilled by Newcrest and Greatland Gold.
- Artemis' study of seismic data interprets folding and good structural complexity in the basement within our Patersons Central project as well as the Havieron discovery.
- Newcrest Quarterly (announced on 30 January 2020) also confirms folding in the basement from drilling information gathered to date.
- Geochemistry data will be used towards generating first drill targets.
- Preparation for ground works underway with crew to be dispatched as soon as ground conditions allow. Estimated commencement in mid-March.

**Executive Director, Alastair Clayton, commented:**

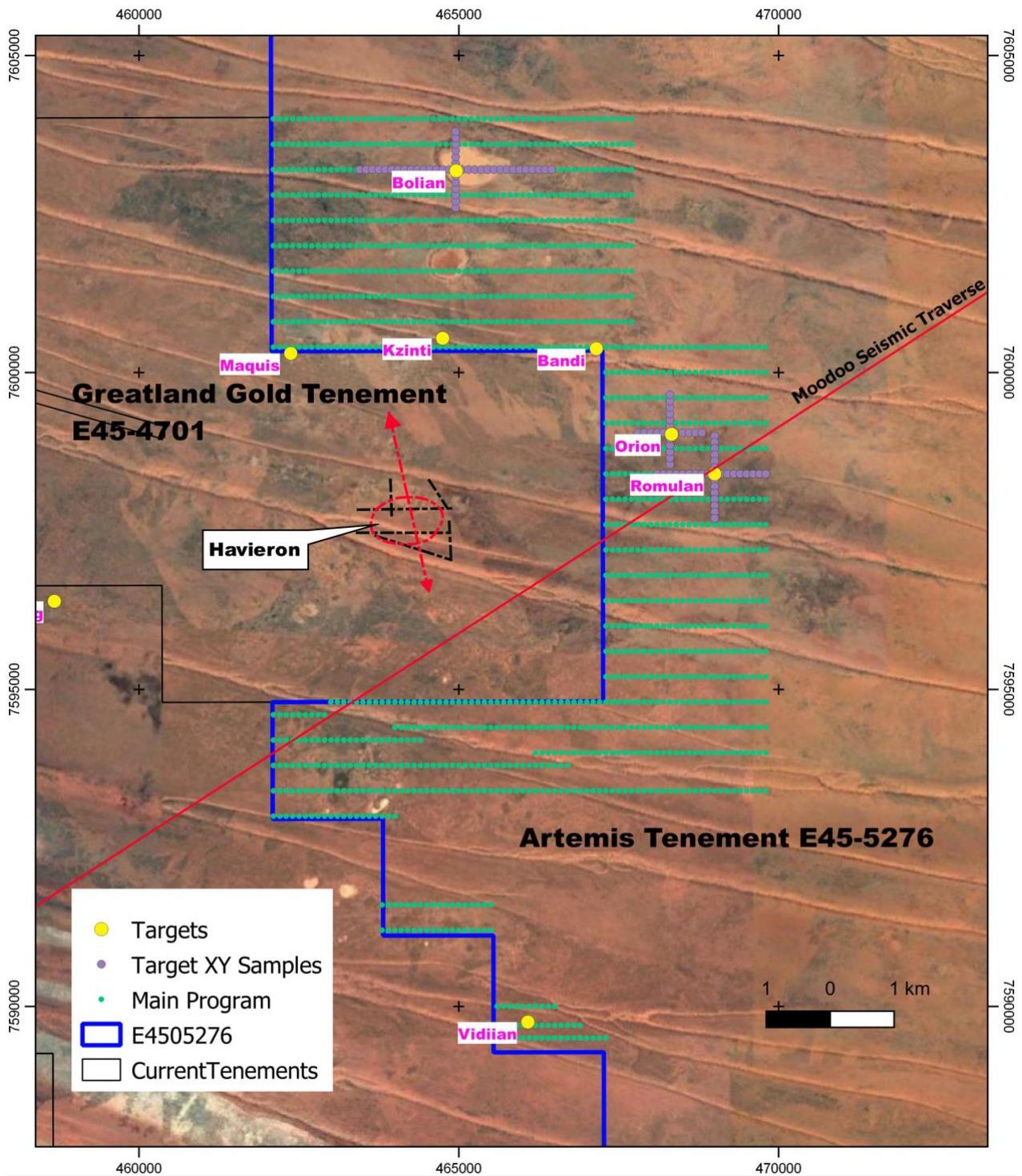
*"Our 100%-owned Paterson Central Project surrounds the outstanding Havieron Gold-Copper discovery on three sides. As well as pure proximity, structural interpretation of Havieron released by Newcrest on 30 January supports our belief that not only do regional fault and splay structures that transect Havieron continue into Artemis ground but deformed and folded basement features, as suggested by seismic data, also are possibly present. The recent release of the Newcrest model for Havieron is, we believe, highly significant for our Paterson Central project. The planned geochemical programme over 7 priority geophysical targets should help generate our very first drill targets. We envisage first drilling at our 100%-owned Paterson Central to begin sometime in Q2 of this year".*

**Artemis Resources Limited** ("Artemis" or "the Company") (ASX:ARV, Frankfurt: ATY, US OTCQB: ARTTF) is pleased to provide an update on planned activities in the Paterson Range. The Paterson Central project covers 605 km<sup>2</sup> and is located approximately 40km east of Newcrest Mining's multi-million-ounce Telfer Gold-Copper mine and is contiguous to the Havieron gold and copper discovery ("Havieron") by Greatland Gold Plc (**Figure 1**).

Based on magnetic and gravity survey results, Artemis has identified thirteen (13) targets within the Patersons Central project (E45/5276). These targets vary in priority as more exploration information comes to hand.

Reprocessing of the Moodoo NC87-13, a 1987 Seismic line (ASX News Release 12 December 2019) which coincidentally covers the Company's wholly owned Paterson Central project, has shown folding and complexity in the basement which has been supported by drilling information released in Newcrest's December Quarterly report.

A Geochemistry program has been designed to cover seven (7) of the thirteen (13) targets identified to date. The seven (7) targets surround the Havieron discovery.



**Figure 1:** Artemis Resources’ Paterson Central tenement E45/5276 (formerly called Armada) that surrounds the Havieron Discovery on 3 sides. 3 Targets (Kzinti, Bandi and Bolian) are immediately north. Ranking of targets will change as more exploration information comes to hand. The proposed Geochemistry program target areas are highlighted on the right-hand side.

**PATERSON CENTRAL PROSPECT OVERVIEW**

Gravity and airborne magnetic surveys have identified 13 targets within a 22 km radius of the Havieron Project. Artemis has assessed these targets based on a combination of magnetic signature, density contrasts and structural character/complexity (Figures 2 and 3).

The Company conducted a detailed airborne magnetic survey (100m line spacing - MAGSPEC Dec 2018) and semi-regional helicopter supported gravity surveying (400x400m grid - ATLAS Feb 2019) over the western half of the project.

Greatland Gold in their first announcement of drilling success at Havieron reported that elevated geochemical responses were obtained proximal to targeted magnetic and gravity anomalies. Subsequent to this they have also reported surface geochemical responses over several other geophysical targets.

Greatland Gold have reported they are using a technique called MMI (Mobile Metal Ions) geochemistry, which is described as an ultra-low-level partial extraction method. This means the solution used (cyanide) does not digest the entire sample. The intent of this and other partial extraction techniques is to extract those anions and cations which are loosely electrochemically bonded from passing solutions onto other minerals such as iron oxides, manganese oxides or clays.

Research shows that sulphidic orebodies give off gaseous emanations carrying ultra-low levels of trace elements within them; these gases will percolate to the surface from major depths and the trace elements are then absorbed onto the soil minerals.

MMI and a similar technique, Ionic Leach, specifically targets these absorbed components.

### **PROPOSED GEOCHEMISTRY PROGRAM**

A soil sampling program has been designed for the area: this will be in 2 parts;

1. over the known magnetic and gravity targets a short set of X-Y traverses over 3 of the targets will be completed; and
2. the samples will be dispatched for analysis by both the MMI and Ionic Leach techniques.

Greatland Gold uses a 200m x 200m square sampling grid in their work. Artemis sample density will be similar. See Figure 1 for sample area.

As soil sampling is low impact exploration, neither heritage or government approval is required.

### **OUTCOMES**

The program could have 2 main outcomes:

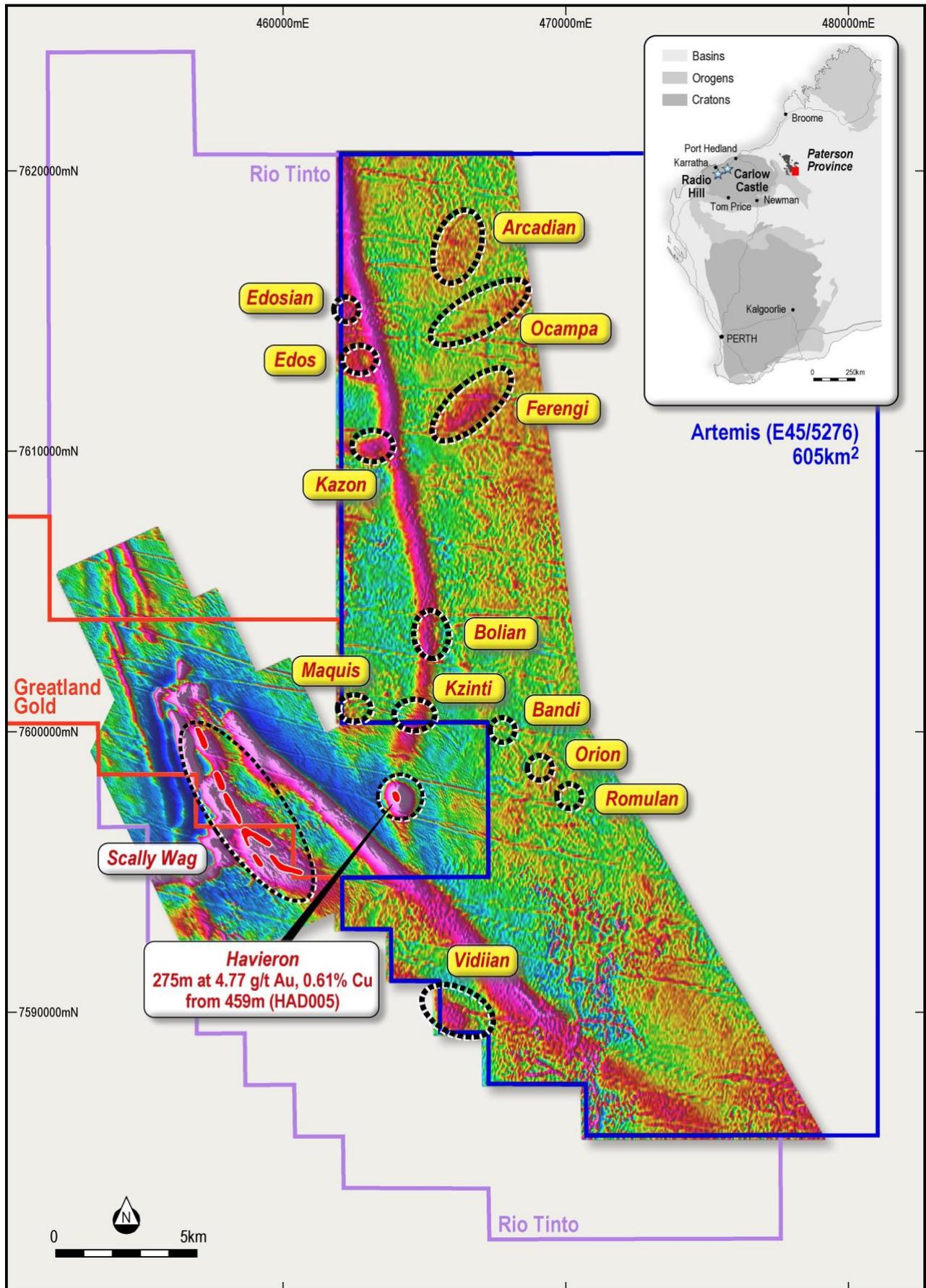
- Clear geochemical anomalies corresponding to any or all the geophysical anomalies would strongly enhance the prospectivity and profile of our tenement;
- Ambiguous or negative geochemical responses would continue the current perspective of the area as the soil program will be attempting to obtain signatures of mineralization >400m below surface and has a high risk of failure.

### **MOODOO SEISMIC LINE**

This seismic line was surveyed in 1987, processed and initially interpreted to determine the hydrocarbon prospectively of the Mesozoic sediments overlying the Proterozoic Paterson Province geology. Since then there have been significant advances and improvements made in processing techniques which appreciably enhance and improve resolution of stratigraphy and more importantly structures. Interpretation of thickness of cover which can be integrated with the gravity data to improve modelling of targets. This seismic line passes approximately 2.5km southeast of Greatland Gold's Havieron Prospect, which coincidentally is over the Company's Patersons Central project, which provides an advantage to Artemis over nearby companies.

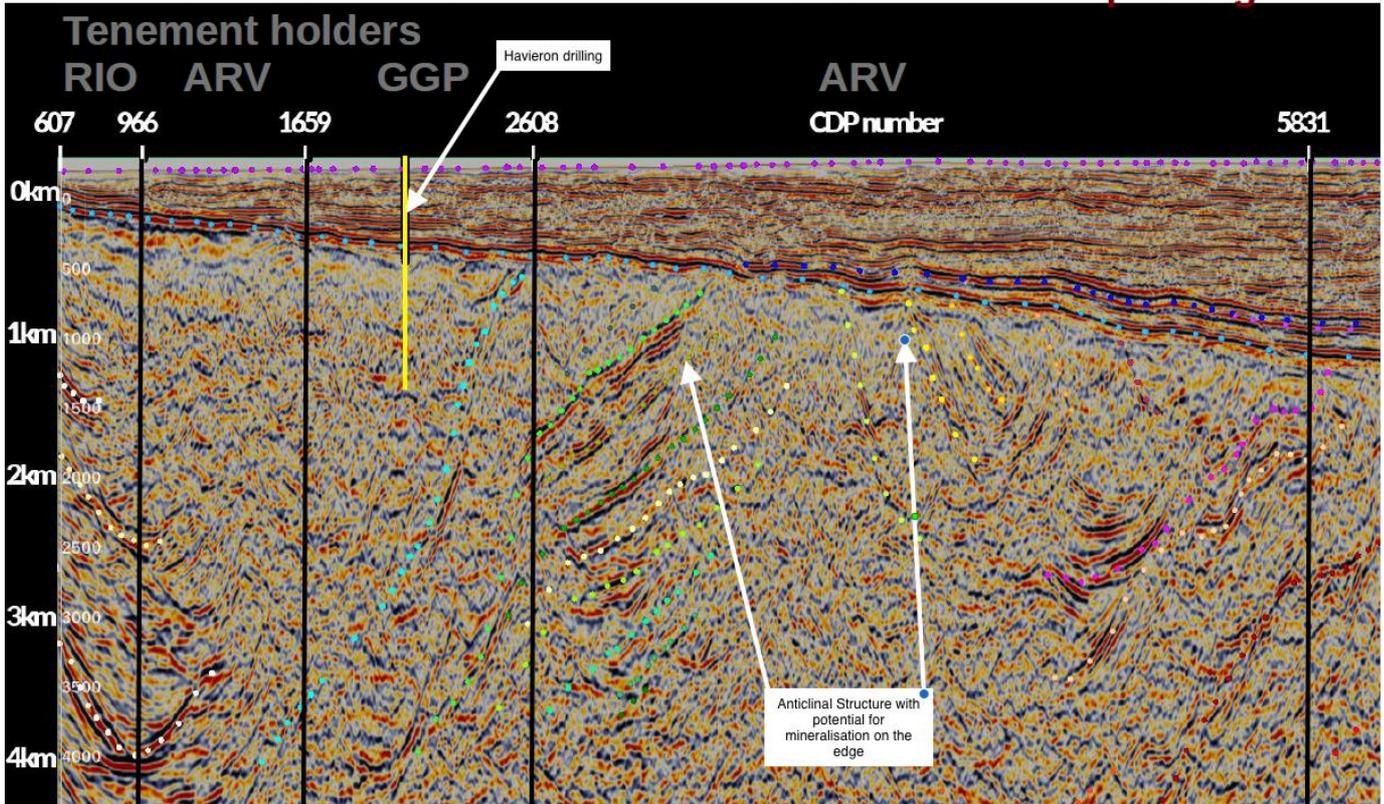
The NC87-13 line transects the Rio Tinto tenement, then Artemis', then over Greatland Gold, then back over Artemis' Patersons Central project. The processed results are shown in Figure 3, which shows depth of cover and structural complexity within the basement. The NC87-13 line transects Rio Tinto (CDP: 607-966), Artemis (966-1659), Greatland Gold (1659-2608) and Artemis (2608-5831).

Results from reprocessing (**Figure 3**) are encouraging as they indicate folding within the basement that could be a site for trapping mineralised hydrothermal fluids.



**Figure 2:** Artemis aeromagnetic and gravity surveys over the western half of the Patersons Central project, showing up to 13 targets, with data merged with the Greatland Gold Plc magnetic data – hence we are able to show anomalies off our tenement.

## Moodoo Seismic line NC87-13 Kirchhoff Prestack depth migration



**Figure 3:** Reprocessed Moodoo Seismic line NC87-13 across Artemis' 100% owned Patersons Central project. The Seismic data indicates folding within the basement and clearly defines the depth of Permian sediments.

The news release was approved by the board.

