

5 February 2024

SIGNIFICANT NEW LITHIUM PEGMATITE DISCOVERY ON 100% OWNED ARTEMIS RESOURCES TENEMENT

ROCK CHIP ASSAYS RETURN PEAK OF 1.82% Li₂O

MINERALISATION CONFIRMED AS SPODUMENE

FURTHER EXPLORATION PROGRAMS UNDERWAY

Highlights:

- Ground reconnaissance sampling from **100% owned** Artemis Resources tenement E47/1746 delivers positive assay results including:
 - 23AR01-17 – **1.82% Li₂O**
 - 23AR01-16 – **1.62% Li₂O**
 - 23AR01-15 – **0.78% Li₂O**
- Mineralisation confirmed by XRD (x-ray diffraction) as being **Spodumene**
- Further reconnaissance and follow-up sampling to be undertaken across E47/1746

Artemis Resources Limited ('Artemis' or the 'Company') (ASX/AIM: **ARV**) is pleased to provide this update to shareholders on its recent ground reconnaissance program which has resulted in a **significant lithium pegmatite discovery** at the Mt Marie Lithium Prospect.

Executive Director George Ventouras commented “These rock chip results are a vote of confidence in the new technical team and the methodologies they’ve employed to explore for lithium bearing pegmatites on our 100% owned tenements. Importantly for the Company and the region, this discovery is further evidence of a potential corridor of lithium mineralisation extending **beyond 40km** in the west Pilbara region, where Artemis’ tenements are located.

We are further encouraged by the geological structure of the pegmatites which appear to be coarse grained and feature **large spodumene crystals** and may parallel the Azure Minerals Andover discovery. We are excited by this development and looking forward to undertaking further work on our 100% owned tenement package”.

Mt Marie Lithium Prospect

A small program of ground reconnaissance was undertaken towards the end of 2023 and targeted several key areas as identified by the new technical team. Our ground team was deployed and through the use of new on-ground techniques, the team was able to target and test various pegmatites.

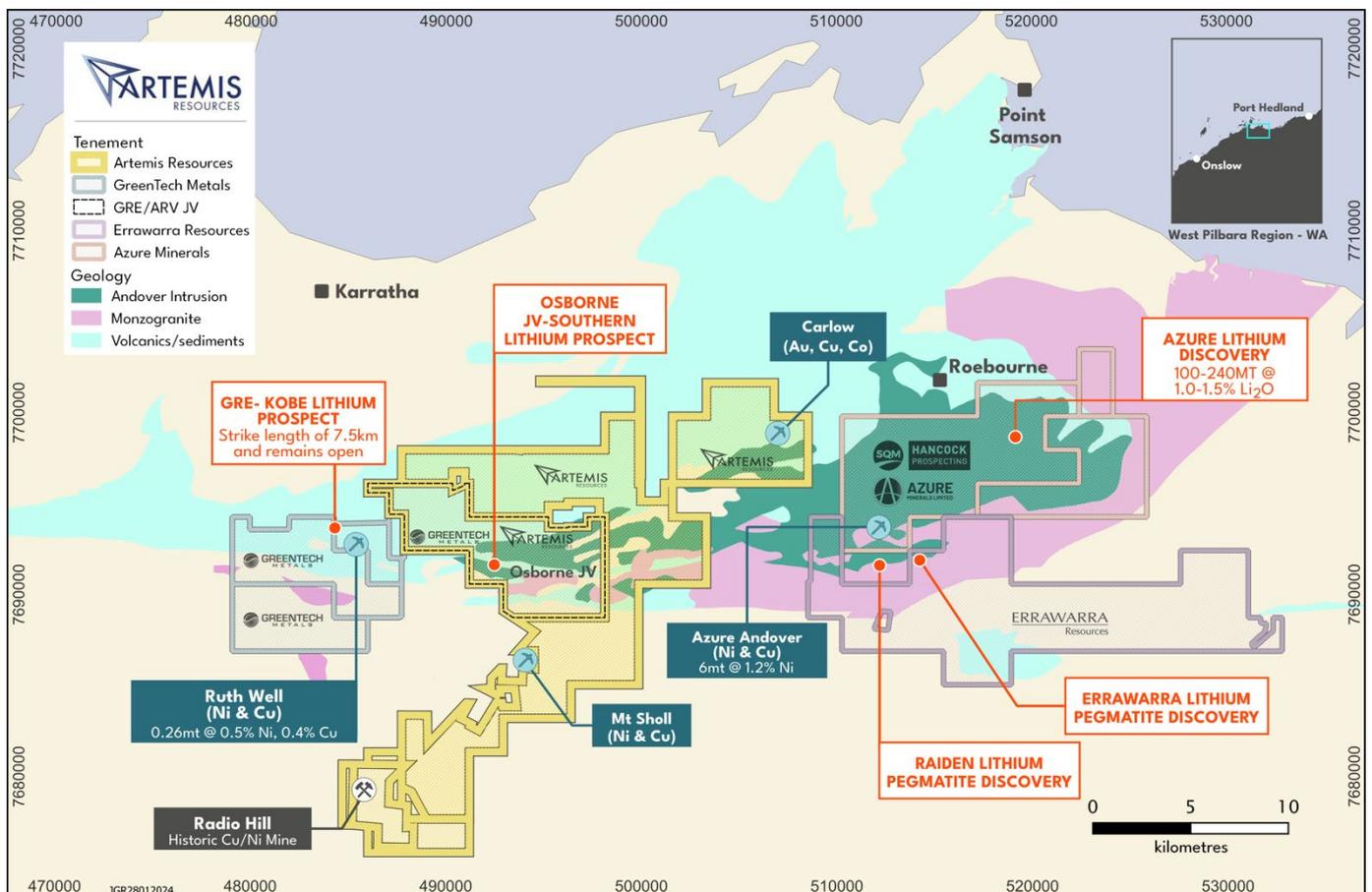


Figure 1. Artemis Resources West Pilbara tenements

In total, 24 new target areas in the northern and central sector of tenement E47/1746 have been identified and the Company will continue to systematically explore these to determine which are host to lithium bearing pegmatites.

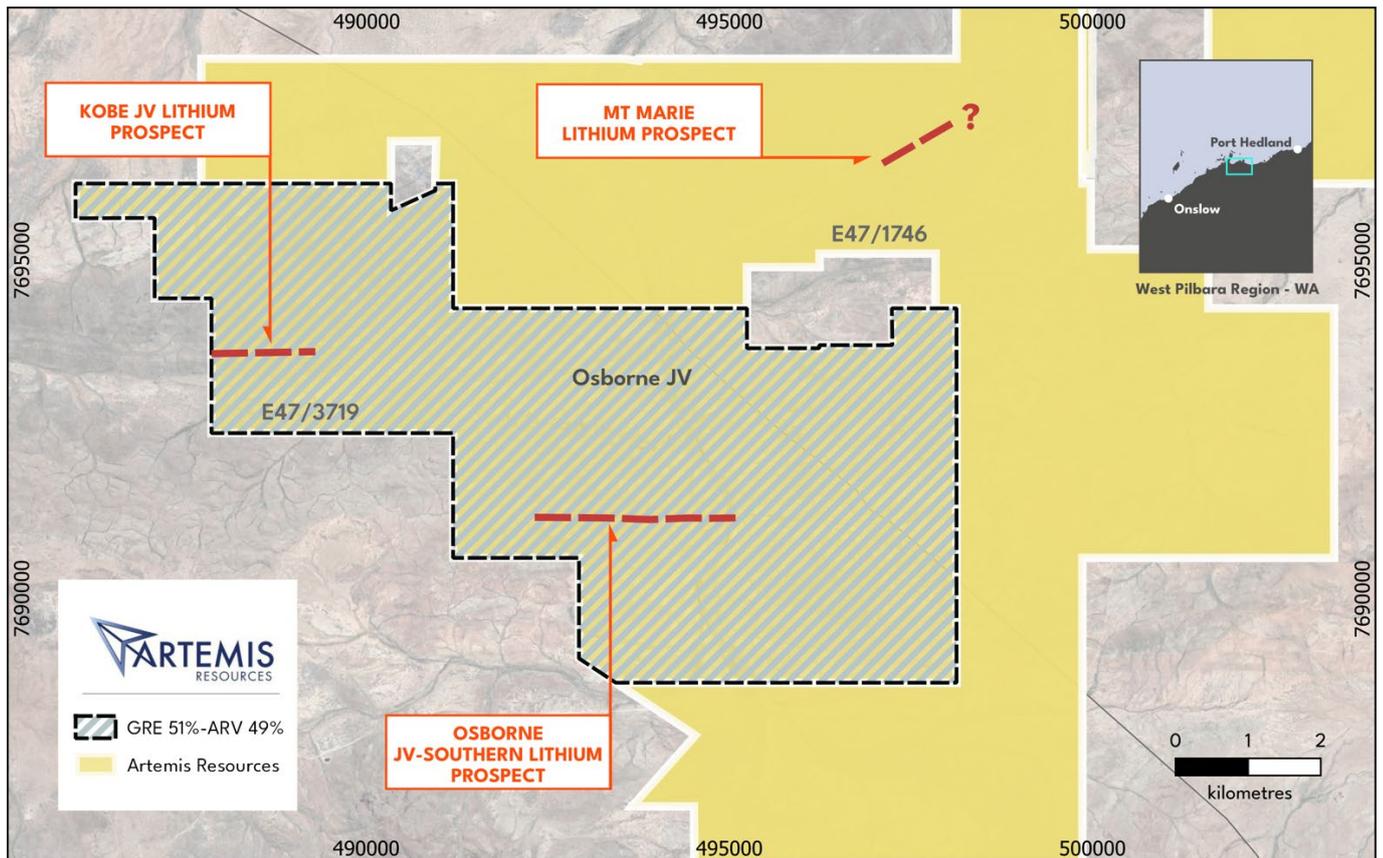


Figure 2 Mt Marie Lithium Prospect

Aerial surveying via the use of drones has commenced to fully map these areas and to assist with follow up sampling plans and will be completed shortly. Following this, further rock chip sampling will be undertaken across the tenement.



Figure 3. Pegmatite outcrop at Mt Marie Lithium Prospect

The initial rock chip assays have delivered encouraging results and include the following;

- 23AR01-17 – **1.82% Li₂O**
- 23AR01-16 – **1.62% Li₂O**
- 23AR01-15 – **0.78% Li₂O**
- 23AR01-21 – **0.65% Li₂O**
- 23AR01-22 – **0.50% Li₂O**

Two of the rock chip samples were tested for mineralogy type at Curtin University. This analysis has confirmed that the host mineral for the lithium is **spodumene**. The spodumene crystals are large (figure 5) and do not exhibit deformity to the extent of other nearby discoveries. These samples and their subsequent structure would appear to parallel the geological fingerprint of the pegmatites at the Andover project of Azure Minerals where they have reported an exploration target of **100-240mt @ 1.00-1.5% Li₂O**¹. Azure Minerals is currently subject to a takeover proposal via a joint bid with SQM and Hancock Prospecting².

The lithium bearing pegmatite at the Mt Marie prospect occurs along a mirrored or similar NE structural trend to pegmatites discovered by Azure Minerals some 20km to the east.



Figure 4. Spodumene crystals in Pegmatite from the Mt Marie Lithium Prospect

¹ASX Announcement, Azure Minerals Ltd, 7 August 2023

²ASX Announcement, Azure Minerals Ltd, 19 December 2023



Figure 5. Spodumene crystal from the Mt Marie Lithium Prospect



Figure 6. Pegmatite outcrop at the Mt Marie Prospect

Further work on the tenements including drone surveying, rock chip sampling, soil sampling and other appropriate ground reconnaissance techniques will continue in the coming weeks to determine the extent of the mineralised envelope.

In addition, further work is being planned on the **Osborne Lithium Project** which is a joint venture with Greentech Metals (ASX:GRE) (ARV:49%-GRE:51%).

This announcement was approved for release by the Board.

For Further information contact:

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About Artemis Resources

Artemis Resources (ASX/AIM: ARV; FRA: ATY; US: ARTTF) is a gold, copper and lithium focused resources company with projects in Western Australia. The Mt Marie Lithium Prospect, the Osborne Lithium JV (Artemis 49%; GreenTech Metals (ASX:GRE) 51%) and the Carlow Castle gold-copper-cobalt project in the West Pilbara; and the Paterson Central Gold/Copper project in the Paterson Province (located adjacent to Greatland Gold / Newcrest's recent gold-copper discovery at Havieron).

Artemis also owns the Radio Hill processing plant, located only 35km from Karratha.

For more information, please visit www.artemisresources.com.au

Competent Person Statement

Adrian Hell, BSc (Hons), MSc, an advisor and consultant to the Company, is a Member of the AUSIMM, and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration 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'. Adrian Hell consents to the inclusion in the report of the information in the form and context in which it appears.

Dr Martin Wells (PhD). The sample testing was carried out in the John de Laeter Centre at Curtin University. Spodumene was identified using a proprietary automated mineralogy technique and confirmed using x-ray diffraction (XRD) analysis by Dr Martin Wells (PhD). Dr Wells is a Research Fellow (Mineralogy/Petrology) and an authority in lithium ore deposits as evidenced by his authorship of the 2023 Geological Survey of Western Australia Report 228 (The geology, mineralogy and Geometallurgy of EV materials deposits in Western Australia; <https://dmpbookshop.eruditetechnologies.com.au/product/mriwa-report-m532-geology-mineralogy-and-metallurgy-of-ematerial-resources-in-wa.do>). Dr Martin Wells consents to the inclusion in the report of the information pertaining to sample analyses undertaken at the John De Laeter Centre in the form and context in which it appears.

Significant Results > 0.5% Li₂O

Sample Id	Easting_m	Northing_m	Cs ppm	Li ppm	Li ₂ O%	Nb ppm	Rb ppm	Ta ppm
23AR01-015	497743.00	7696974.00	81.2	3650	0.78%	48.3	856	84.4
23AR01-016	497750.00	7696969.00	46	7510	1.62%	46.1	1695	61.8
23AR01-017	497758.00	7696969.00	33.2	8440	1.82%	123.5	823	104
23AR01-021	497820.00	7696984.00	214	3020	0.65%	28.4	3970	38.6
23AR01-022	497804.00	7696984.00	70.2	2330	0.5%	25.9	2720	44.9

JORC Code, 2012 Edition – Table 1 report template

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i> <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> <i>In cases where ‘industry standard’ work has been done this would be relatively simple (eg ‘reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay’). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i> 	<ul style="list-style-type: none"> Reconnaissance style rock chip sampling taken opportunistically from pegmatite outcrop. This announcement discusses the findings of a reconnaissance site visit with a view to determining the lithium potential of the Company’s tenements and which included the collection of rock chip samples. Pegmatite was identified in outcrop. The rock chip samples were restricted to outcrop of pegmatite rocks. Samples were dispatched to ALS Global Laboratories in Perth for analysis.
Drilling	<ul style="list-style-type: none"> <i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of</i> 	<ul style="list-style-type: none"> Not applicable. This announcement does not relate to drilling carried out by Artemis Resources Ltd.

<p>techniques</p>	<p><i>diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i></p>	<ul style="list-style-type: none"> No mention is made in this announcement of exploration results including drilling conducted by other companies on nearby tenements.
<p>Drill sample recovery</p>	<ul style="list-style-type: none"> <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> <i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i> 	<ul style="list-style-type: none"> Not applicable as no details on any drilling carried out by Artemis Resources are included in this announcement.
<p>Logging</p>	<ul style="list-style-type: none"> <i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i> <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i> <i>The total length and percentage of the relevant intersections logged.</i> 	<ul style="list-style-type: none"> Not applicable due to the reconnaissance nature of the sampling.
<p>Sub-sampling techniques and sample preparation</p>	<ul style="list-style-type: none"> <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> <i>Measures taken to ensure that the sampling is representative of the insitu material collected, including for instance results for field duplicate/second-half sampling.</i> 	<ul style="list-style-type: none"> Rock chip samples were dispatched to ALS Global Laboratories in Perth for analysis using their ME_MS89L (52 elements) plus B-MS89L technique. 53 elements in total. Sample decomposition by Sodium Peroxide Fusion, HCl leach (FUS-PER02) is considered complete. The laboratory reported the use of standards and blanks as part of the analyses for QA/QC. In addition to the lab standards and blanks, three lab pulp duplicates were also reported. The samples were opportunistic in nature and taken from insitu outcrop. Samples were approximately 0.5kg to 1kg in weight. The samples were considered generally representative of the outcrop being sampled.

	<ul style="list-style-type: none"> • <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	
<p>Quality of assay data and laboratory tests</p>	<ul style="list-style-type: none"> • <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> • <i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i> • <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i> 	<ul style="list-style-type: none"> • Rock chip samples were dispatched to ALS Global Laboratories in Perth for analysis using their ME_MS89L (52 elements) plus B-MS89L technique. 53 elements in total. • The laboratory reported the use of standards and blanks as part of the analyses for QA/QC. • No standards or blanks were submitted by the company. • The mineralogy of two lithium bearing samples was determined by XRD analysis undertaken at Curtin University. • XRD: Diffraction patterns were obtained using a Bruker D8 Discover diffractometer using CuKα radiation (40 kV and 40 mA) and scanning from 4 to 90° 2θ in 0.015° 2θ steps, counting for 1.08 s/step for a total scan time of \approx100 minutes/scan • • Samples were prepared for random-powder XRD analysis by front loading of pulverised material into a plastic mount • Diffraction patterns displayed in the following slides are presented over the 5–60° and 10°33° 2θ angle-range to better display some of the less intense peaks • To correct for 2θ shifts in the diffraction patterns was shifted using quartz as the internal standard. • TIMA automated mineralogy: Mineral and element distribution maps of two polished round mounts (25 mm diameter) were obtained using the TIMA (Tescan Integrated Mineral Analyser), automated mineralogy system at the John De Lataeur Centre.
<p>Verification of sampling and assaying</p>	<ul style="list-style-type: none"> • <i>The verification of significant intersections by either independent or alternative company personnel.</i> • <i>The use of twinned holes.</i> • <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> 	<ul style="list-style-type: none"> • Duplicate samples of the lithium bearing pegmatite have been submitted to Curtin University in Perth for XRD analysis. • The results of these verification analyses have been received.

	<ul style="list-style-type: none"> • <i>Discuss any adjustment to assay data.</i> 	
Location of data points	<ul style="list-style-type: none"> • <i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i> • <i>Specification of the grid system used.</i> • <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> • Sample points were determined by hand held GPS which is considered appropriate for the reconnaissance nature of the sampling.
Data spacing and distribution	<ul style="list-style-type: none"> • <i>Data spacing for reporting of Exploration Results.</i> • <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i> • <i>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> • Not applicable due to the reconnaissance nature of the sampling. • No attempt has been made to demonstrate geological or grade continuity between sample points.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> • <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i> 	<ul style="list-style-type: none"> • Not applicable
Sample security	<ul style="list-style-type: none"> • <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> • Sample security is by way of chain of custody.
Audits or reviews	<ul style="list-style-type: none"> • <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> • No review of the sampling techniques has been undertaken.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> • <i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i> • <i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i> 	<ul style="list-style-type: none"> • The Mt Marie project tenement covers an area of 126km² and comprises granted tenement: E47/1746 • The tenement is 100% owned by Artemis Resources subsidiary company KML No 2 Pty Ltd • The tenement is in good standing with DMIRS and there are no known impediments for exploration on these tenements.
Exploration done by other parties	<ul style="list-style-type: none"> • <i>Acknowledgment and appraisal of exploration by other parties.</i> 	<ul style="list-style-type: none"> • Numerous exploration parties have held the area covered by the current Artemis Resources tenure previously. There is no reported previous exploration for lithium bearing pegmatites on the tenements. • No other exploration companies generated data was used in this release. • Regional RTP aeromagnetism and geology from Geological Survey of WA. • The area was previously explored by Fox Resources Ltd and was focussed on nickel and gold exploration.
Geology	<ul style="list-style-type: none"> • <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> • The lithium bearing pegmatite zone trends NE-SW and is hosted in proximity to the contact between the Regal and the Clearville Formations. • The lithium pegmatites appear as coarse crystalline with primary feldspar quartz composition. Further mapping is being undertaken to understand the surface characteristics.

<p>Drill hole Information</p>	<ul style="list-style-type: none"> • <i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i> <ul style="list-style-type: none"> ○ <i>easting and northing of the drill hole collar</i> ○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> ○ <i>dip and azimuth of the hole</i> ○ <i>down hole length and interception depth</i> ○ <i>hole length.</i> • <i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i> 	<ul style="list-style-type: none"> • Not applicable as no drilling has been undertaken
<p>Data aggregation methods</p>	<ul style="list-style-type: none"> • <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i> • <i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i> • <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i> 	<ul style="list-style-type: none"> • Not applicable
<p>Relationship between mineralisation</p>	<ul style="list-style-type: none"> • <i>These relationships are particularly important in the reporting of Exploration Results.</i> • <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> 	<ul style="list-style-type: none"> • Not applicable as surface sampling is reconnaissance in nature.

widths and intercept lengths	<ul style="list-style-type: none"> <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i> 	
Diagrams	<ul style="list-style-type: none"> <i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i> 	<ul style="list-style-type: none"> All the appropriate maps are provided in the body of this announcement.
Balanced reporting	<ul style="list-style-type: none"> <i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i> 	<ul style="list-style-type: none"> This announcement discusses the findings of recent reconnaissance sampling and associated assays.
Other substantive exploration data	<ul style="list-style-type: none"> <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i> 	<ul style="list-style-type: none"> All the meaningful exploration data has been included in the body of this announcement.
Further work	<ul style="list-style-type: none"> <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i> 	<ul style="list-style-type: none"> Artemis Resources plans to conduct further ground reconnaissance and sampling in the short term to determine the surface extent both laterally and along strike and also the economic potential of the prospect. Trenching and drilling will also be undertaken if warranted.