

## Exploration Confirms High Grade Copper Potential Augustus Polymetallic Project, Arizona

AVM is on the ground at the Augustus project in Arizona. The team is employing a range of data collection technologies to de-risk the development processes and identify the highest quality zones for exploration. The data developed and collected is vital to our analysis and ultimate determination of exploration targets.

### HIGHLIGHTS

- **High-grade copper potential established at Augustus, with XRF sample results demonstrating copper grades as high as 20.47% Cu.**
- **A large area for potential copper ore identified through drone-supported ground surveys, geological field reconnaissance, satellite analysis, and geochemical surveys.**
- **AVM geologists completed a reconnaissance surface geochemical sampling campaign across the property, encountering numerous copper zones, brecciated zones, and hydrothermal alteration.**
  - 30 rock chip samples are undergoing geochemical analysis at Paragon Labs in Nevada.
- **AVM observed copper mineralisation outcrops at surface on AVM claims. In one instance, an outcropping was mapped for over 274 m (900 ft).**
- **Copper oxide and sulfide mineralisation were observed within claim boundaries.**
  - Mineralisation included chrysocolla and malachite, copper oxide minerals, and copper sulphide minerals such as bornite and chalcopyrite.
- **Drone-supported ground gravity and aeromagnetic surveys are currently ongoing at site.**

**Commenting on the exploration program, Advance Chief Executive Officer Frank Bennett said:**

“Augustus is shaping to be a unique project. Our claims cover over +1,700 acres of highly prospective copper mineralization along a detachment fault. Our team is integrating technology, newly collected data and historic data to best identify and pursue promising zones within the claims area. Preliminary analysis of this information indicates strong exploration potential across the project. We are excited about the results. This is an important step for the company and its shareholders.”

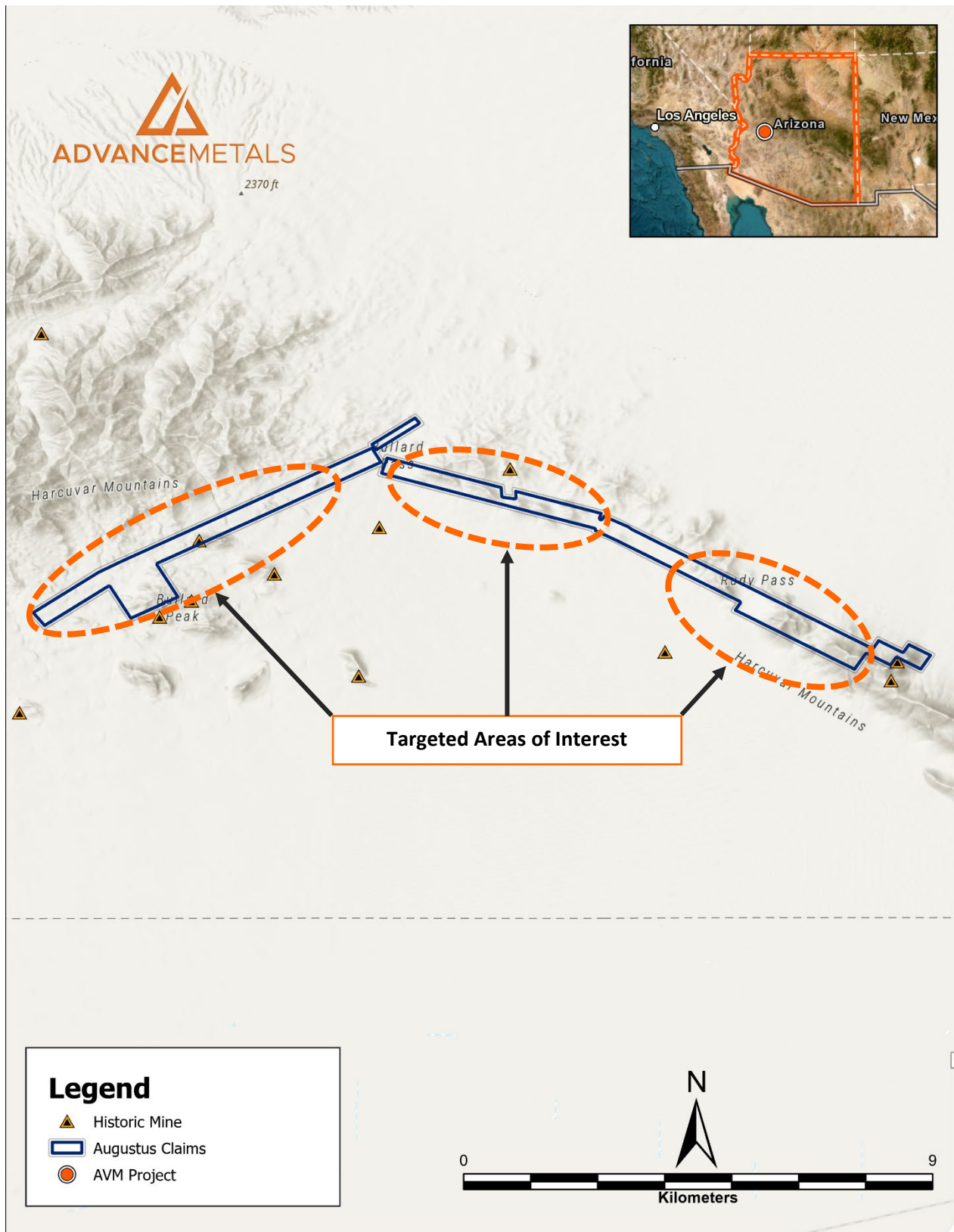


Figure 1: Project Location and Areas of Interest

**Advance Metals Limited (ASX: AVM)** is pleased to confirm that the company completed the first phase of exploration at the Augustus polymetallic project in Arizona. A team of AVM geologists collected rock chip samples, mapped geological features, and planned future drill hole locations. AVM employed a full suite of exploration and analytical tools to help de-risk the project and target areas with potential for copper mineralization.

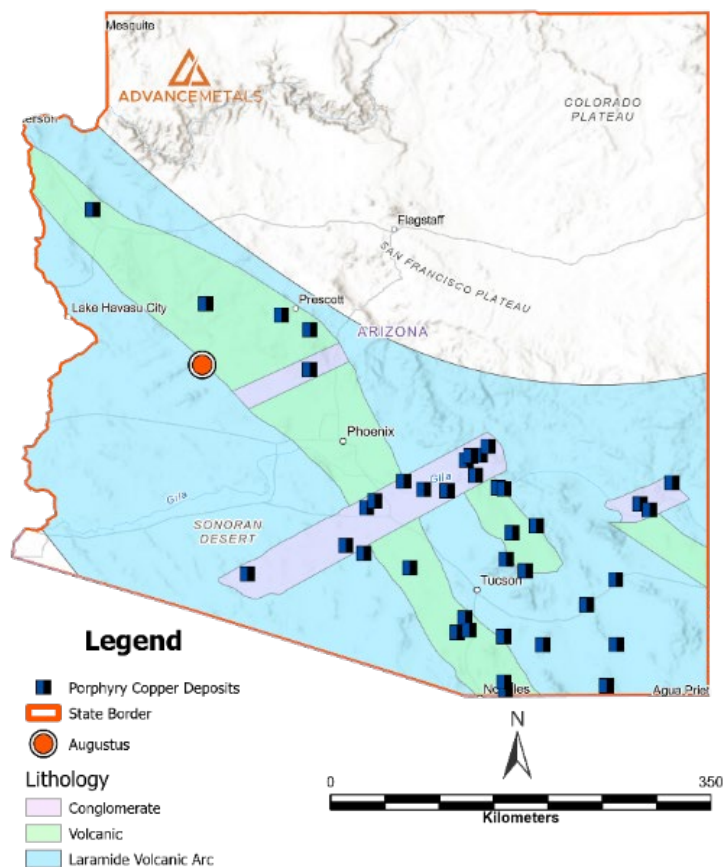
The geologists identified and mapped several copper mineralised zones exposed at surface observing copper oxide and sulfide mineralisation within AVM claim boundaries. One copper zone was mapped contiguously for over 274 m (900 ft), and XRF sample results demonstrated copper grades as high as 20.47%. The copper zone was found close to historical adits and other evidence of historical mining. AVM geologists collected 30 rock chip samples and submitted them for geochemical analysis at Paragon Labs in Nevada.

### Background

The 100% owned Augustus polymetallic project covers 1,749 contiguous acres. The project resides in the central western part of Arizona, approximately 140 km (87 mi) northwest of Phoenix, AZ. AVM staked 85 federal lode mining claims to acquire the project.

AVM personnel undertook an in-depth technical review of historical documentation to digitize relevant information and develop GIS exploration models utilising historical drilling records. The process involved utilizing GIS modelling software, AI programs, satellite remote sensing, and geological and geophysical analysis of the project area.

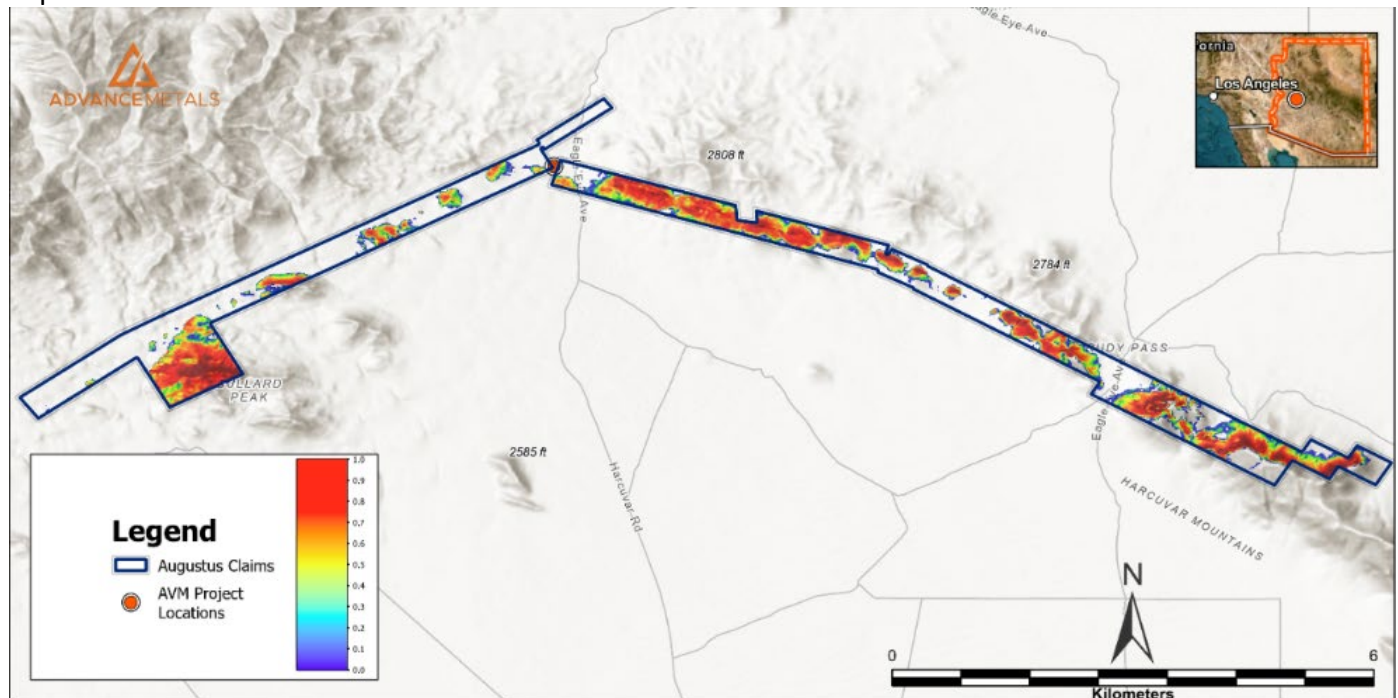
Analysis of the historic results found strong exploration potential at the Augustus project. The company then completed drone-supported ground surveys, geological field reconnaissance, satellite analysis, and geochemical surveys as of initial geological assessment of the project.



**Figure 2: Project Location**

## Augustus Spectral Analysis

The Spectral Analysis Survey has proven to be a valuable tool for identifying potential exploration zones. Specifically, the survey has highlighted areas for potential copper mineralisation. Using a copper-bearing spectral prospectivity map, the survey identified key targets aligning with lithological contact boundaries and fault-related ore controls. This information supports and strengthens the prospectivity of current exploration zones.



**Figure 3: Spectral Analysis**

## Geological and Surface Sampling Reconnaissance

An aeromagnetic drone survey was conducted over three areas of interest at Augustus covering approximately 50 km<sup>2</sup> of UAV coverage at 100m line spacing. The aeromagnetic survey targeted potential faults, mineralized outcrops, and infrastructure. Surface mapping was completed to understand and confirm the surface conditions of the project area.

AVM geologists observed altered and brecciated rocks as strong indicators of hydrothermal activity within the project. Copper sulphides of bornite and chalcopyrite were observed in outcrops on the AVM property. AVM collected 30 rock chip samples for geochemical analysis based on visible alteration, copper mineralisation, and other mineralogy. The geochemical results from this sampling program are expected in the coming weeks.

In addition to sampling, AVM geologists collected 90 mapping data points containing crucial information such as faults, contacts, veins, historical adits, and drill holes. The team identified historical mine workings and drill hole locations which might be eligible for use as JORC data points in the future.

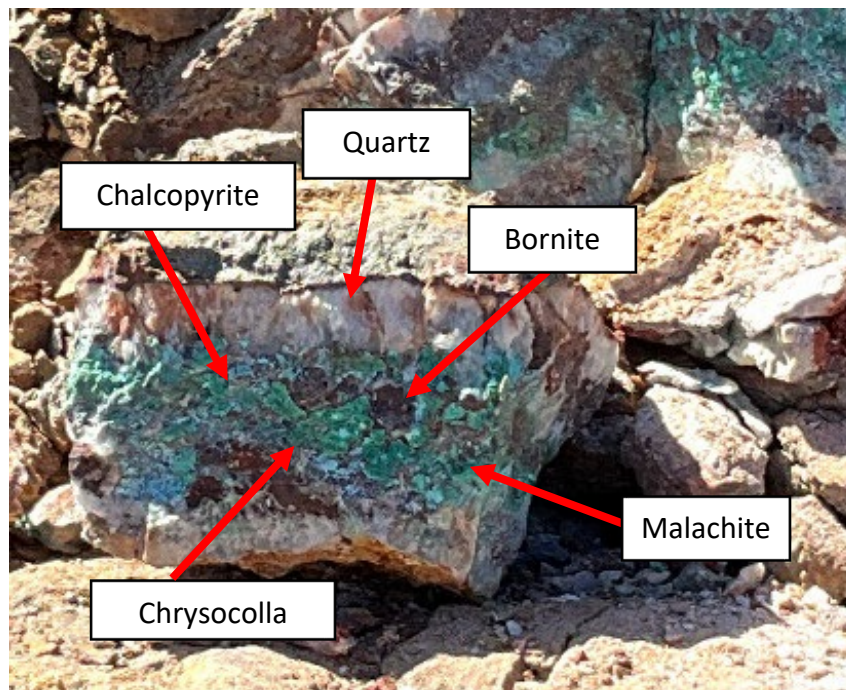




**Figure 4: Exploration Results and Surface Copper Zones**

### Copper Sulphide and Oxide Mineralization

Copper mineralisation on AVM claims in the Augustus project contain copper oxides such as malachite and chrysocolla. Additionally, copper sulphide minerals of bornite and chalcopyrite were also observed on the surface. The copper sulphide mineralisation on the surface indicates the possibility of copper ore at deeper levels.



**Figure 5: AUG-23-005 featuring Bornite and Chalcopyrite**

## XRF Sample Results

AVM tested several select rock chip samples with a portable X-Ray Fluorescence (pXRF) unit during the mapping program. The samples exhibited high-grade copper and highlighted the potential of the Augustus project.

Field results of the portable pXRF analysis demonstrated copper concentrations as high as 20.47% Cu. In-situ samples analysed using the pXRF during field exploration exhibited an average copper grade of 4.68% Cu across twenty-five samples.

Results from the XRF unit can be seen in the table below, highlighting a potential high-grade copper deposit within the AVM claim boundaries. While the pXRF samples show high levels of copper, the results of geochemical assays will provide better indications of copper mineralization at Augustus.

**Table 1 XRF Spot Samples**

Sample	Cu %
AUG_XRF_13	20.47
AUG_XRF_12	17.25
AUG_XRF_4	15.82
AUG_XRF_17	12.90
AUG_XRF_3	12.73
AUG_XRF_7	8.90
AUG_XRF_2	7.52
AUG_XRF_9	6.36
AUG_XRF_18	3.43
AUG_XRF_21	3.13
AUG_XRF_20	2.91
AUG_XRF_22	2.80



**Photo 1: Rock Sample**

XRF data is taken as point values and will not represent the true grade of the samples assayed. The elemental data is highly dependent on the location at which the beam intersects the rock. The device used to take the data points is an Olympus Vanta M Series Handheld X-ray fluorescence (XRF) analyser, producing a beam spot diameter of up to 3mm. It is designed to achieve laboratory-quality results in the field and provides rapid and accurate elemental analysis and testing.

## Next Steps

In the coming weeks, the AVM will receive lab assay results from the geochemical samples at Augustus. AVM will also receive the final results from the aeromagnetic survey, which will be used for modelling potential exploration targets. The combination of the geochemical assays and aeromagnetic surveys should allow the company to establish JORC exploration targets and start the permitting process for future drilling.

**This market announcement has been authorised for release to the market by the Board of Advance Metals Limited.**

## For more information, please contact:

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### About Advance Metals Limited

Advance Metals Limited (ASX: AVM) is a copper-focused exploration company with a world-class portfolio of copper growth projects in mining-friendly jurisdictions of the United States. We seek to maximise shareholder value through the acquisition, discovery, and advancement of high-quality metals projects in North America. The Company utilises the expertise of our North American exploration team to identify underexplored and undervalued high-grade copper projects with significant geological potential.

The Company has 100% ownership of the Garnet Skarn Deposit, the Augustus Polymetallic Project, and the Anderson Creek Gold Project. More details are available on AVM's website [www.advancemetals.com.au](http://www.advancemetals.com.au).



**AVM Project Locations**



### **Previously Released Information**

AVM confirms it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of exploration targets, that all material assumptions and technical parameters underpinning the exploration targets in the relevant market announcements continue to apply and have not materially changed. AVM confirms that the form and context in which the Competent Person's findings were presented have not been materially modified from the original market announcements.

### **Forward-Looking Statements**

Statements contained in this release, particularly those regarding possible or assumed future performance, revenue, costs, dividends, production levels or rates, prices, or potential growth of the Company, are or may be forward-looking statements. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties. Actual results and developments may differ materially from those expressed or implied by these forward-looking statements.

The interpretations and conclusions reached in this announcement are based on current geological theory and the best evidence available to the authors at the time of writing. It is the nature of all scientific conclusions that they are founded on an assessment of probabilities and, however high they might be, make no claim for absolute certainty. Any economic decisions which might be taken on the basis of interpretations or conclusions contained in this report will therefore carry an element of risk, or conclusions contained in this report will therefore carry an element of risk.

### **Competent Persons Statement**

The information in this report that relates to Exploration Results is based on information compiled by Mr. Jim Guilinger. Mr. Guilinger is a Member of a Recognised Overseas Professional Organisation included in a list promulgated by the ASX (SME Registered Member of the Society of Mining, Metallurgy and Exploration Inc).

Mr. Guilinger is Principal of independent consultants World Industrial Minerals LLC. Mr. Guilinger has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Guilinger consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

**JORC Code, 2012 Edition – Table 1 Augustus Polymetallic Project, Yavapai County, Arizona**

**Section 1 Sampling Techniques and Data**

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

Criteria	JORC Code explanation	Commentary
<p><b>Sampling techniques</b></p>	<p><i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</i></p> <p><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></p> <p><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></p> <p><i>In cases where 'industry standard' work has been done, this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.</i></p>	<p>A handheld Olympus Vanta M series XRF Analyser was used to provide a preliminary geochemistry assessment of the rocks in outcrop during fieldwork.</p> <p>Thirty grab samples were collected from surface outcrops that showed high preliminary XRF readings in copper concentration. Grab samples are representative of the outcrop they came from but may not be representative of the deposit as a whole. This type of sampling is appropriate for preliminary exploration.</p> <p>The XRF was factory calibrated, but no other calibration adjustments were applied.</p> <p>A geologist collected rock samples. Rock samples were collected at the surface using a steel rock hammer from the outcrop. Rock chip samples were geolocated and tagged using a GPS unit before being photographed and described in field notes. Samples were placed in plastic bags with unique identifiers aligned with field note tags and sealed for transport to lab. The grab samples are not representative of the deposit as a whole. Future sampling will address this issue.</p>

<b>Drilling techniques</b>	<i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or another type, whether the core is oriented and if so, by what method, etc.).</i>	Not applicable.
	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	Not applicable.
<b>Drill sample recovery</b>	<i>Measures are taken to maximise sample recovery and ensure the representative nature of the samples.</i>	Not applicable.
	<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>	Not applicable.
	<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>	Not applicable.
<b>Logging</b>	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i>	Rock samples were qualitatively and geologically described. Rock samples were photographed before being placed in a secure bag with a unique identifier linked to sample field notes.
	<i>The total length and percentage of the relevant intersections logged.</i>	Not applicable.
	<i>If core, whether cut or sawn, and whether quarter, half, or all core taken.</i>	Not applicable.
<b>Sub-sampling techniques and sample preparation</b>	<i>If non-core, whether riffled, tube sampled, rotary split, etc., and whether sampled wet or dry.</i>	Grab samples were dry upon collection.
	<i>For all sample types, the nature, quality, and appropriateness of the sample preparation technique.</i>	Not applicable.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise the representivity of samples.</i>	Not applicable.



<p><b>Quality of assay data and laboratory tests</b></p>	<p><i>Measures are taken to ensure that the sampling is representative of the in-situ material collected, including, for instance, results for field duplicate/second-half sampling.</i></p>	<p>Grab sampling was selective and based on geological observations and field XRF analyses.</p>
	<p><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></p>	<p>Not applicable.</p>
	<p><i>The nature, quality, and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></p>	<p>The samples were analysed using a handheld XRF appropriate for preliminary exploration work. The XRF reports partial results.</p>
	<p><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></p>	<p>An Olympus Vanta M series handheld XRF was used with the Geochem (3-beam) analysis mode. Beam 1 read for 15s, Beam 2 read for 15s, and Beam 3 read for 60s for a total of 90s per sample. No calibration factors were used as this is a preliminary exploration project, and project-specific calibration factors have not yet been developed.</p>
<p><b>Verification of sampling and assaying</b></p>	<p><i>Nature of quality control procedures adopted (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e., lack of bias) and precision have been established.</i></p>	<p>Not applicable.</p>
	<p><i>The verification of significant intersections by either independent or alternative company personnel.</i></p>	<p>Samples have not been verified by independent personnel.</p>
<p><b>Verification of sampling and assaying</b></p>	<p><i>The use of twinned holes.</i></p>	<p>Not applicable.</p>
	<p><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></p>	<p>Data entry was performed by AVM personnel and checked by AVM geologists. Field data were all recorded in field notebooks and entered into a digital database.</p>

<p><b>Location of data points</b></p>	<p><i>Discuss any adjustment to assay data. 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></p>	<p>Rock samples and outcrops were photographed before lab analysis.</p>
	<p><i>Specification of the grid system used.</i></p>	<p>Not applicable.</p>
	<p><i>Quality and adequacy of topographic control.</i></p>	<p>Sample location is based on GPS coordinates +/- 10 m.</p>
	<p><i>Data spacing for reporting of Exploration Results.</i></p>	<p>The grid system used to compile data was NAD83 Zone 12N.</p>
<p><b>Data spacing and distribution</b></p>	<p><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></p>	<p>Topography control is +/- 10 ft (3 m).</p>
	<p><i>Whether sample compositing has been applied.</i></p>	<p>Data spacing is currently random.</p>
<p><b>Orientation of data in relation to geological structure</b></p>	<p><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></p>	<p>Not applicable.</p>
	<p><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></p>	<p>Not applicable.</p>
<p><b>Sample security</b></p>	<p><i>The measures are taken to ensure sample security.</i></p>	<p>Chains of custody were maintained at all times.</p> <p>All rock samples were in the direct control of company geologists until dispatched to Paragon Labs.</p>

**Audits or reviews**

*The results of any audits or reviews of sampling techniques and data.*

Samples were kept in numbered bags and transferred a double walled system to ensure integrity during transit to lab.

No external audits or reviews have been conducted to date. However, sampling techniques are consistent with industry standards.

**Section 2 Reporting of Exploration Results**

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<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 parks, and environmental settings.</i>	Advance Metals controls 85 Federal Lode Claims covering an area of 1,749 acres. Annual claim maintenance fees are payable to the BLM by September 1 of each year. AVM paid initial staking fees in June 2022.
	<i>The security of the tenure held at the time of reporting and any known impediments to obtaining a licence to operate in the area.</i>	The claims are 100% owned by Texas and Oklahoma Coal Company (USA) Inc (a 100% owned AVM subsidiary). No impediments to holding the claims exist. To maintain the claims, an annual holding fee of \$165/claim is payable to the BLM.
<b>Exploration done by other parties</b>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	The area was previously explored for Gold by Freeport-McMoRan, Teck Resources, Canadian Mining Inc. and Asarco Resources.
<b>Geology</b>	<i>Deposit type, geological setting, and style of mineralisation.</i>	The copper ore occurs within quartzite and arkosic conglomerate as a hydrothermal vein hosted in Tertiary volcanics. The occurrence can be characterised as a vein-type polymetallic deposit.
<b>Drill hole Information</b>	<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: easting and northing of the drill hole collar</i>	Not applicable.
		Not applicable.



*elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*

*dip and azimuth of the hole*

*downhole length and interception depth*

*Hole length.*

*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.*

*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.*

*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.*

*The assumptions used for any reporting of metal equivalent values should be clearly stated.*

*These relationships are particularly important in the reporting of Exploration Results.*

*If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*

*If it is unknown and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*

*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*

Not applicable.

No high-grade cutting.

No aggregation used

No metal equivalents used

Not applicable.

See Figures in the within this press release above.

**Data aggregation methods**

**Relationship between mineralisation widths and intercept lengths**

**Diagrams**

*plan view of drill hole collar locations and appropriate sectional views.*

**Balanced reporting**

*Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practised to avoid misleading reporting of Exploration Results.*

Total copper values range from 0.04 to 20.47% in selected rock samples as read by the handheld XRF.

**Other substantive exploration data**

*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.*

In hand specimen the copper sulphide grains of azurite and chalcopyrite ranged in diameter from 2-4 cm. The copper vein is hosted in a calc-silicate rock within an andesite. The andesite is considered to be hydrothermal in nature as it is hosted in a breccia of chlorite, calcite, feldspar, and/or quartz minerals.

**Further work**

*The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).  
Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*

Further mapping, grid sampling, and ground radiometric studies are planned to delineate potential drill targets.

There is not enough data for geological interpretations and drill planning at this time.

Note that JORC Sections 3 and 4 are not relevant at this early state of exploration.

**Table 2 XRF Units**

Sample ID	Zone	Easting	Northing	Cu (ppm)	Cu %
AUG_XRF_1	12N	288957	3770751	126	0.01
AUG_XRF_2	12N	288954	3770750	75210	7.52
AUG_XRF_3	12N	288954	3770750	127290	12.73
AUG_XRF_4	12N	288954	3770750	158159	15.82
AUG_XRF_5	12N	288948	3770748	4128	0.41
AUG_XRF_6	12N	288946	3770747	2625	0.26
AUG_XRF_7	12N	288946	3770747	88959	8.90
AUG_XRF_8	12N	288946	3770747	2635	0.26
AUG_XRF_9	12N	288943	3770746	63579	6.36
AUG_XRF_10	12N	288942	3770746	1659	0.17
AUG_XRF_11	12N	288940	3770746	1151	0.12
AUG_XRF_12	12N	288936	3770746	172493	17.25
AUG_XRF_13	12N	288885	3770725	204658	20.47
AUG_XRF_14	12N	288877	3770725	2034	0.20
AUG_XRF_15	12N	288832	3770711		
AUG_XRF_16	12N	289079	3770812	433	0.04
AUG_XRF_17	12N	289079	3770812	129010	12.90
AUG_XRF_18	12N	289079	3770812	34273	3.43
AUG_XRF_19	12N	289086	3770828	13296	1.33
AUG_XRF_20	12N	289086	3770828	29093	2.91
AUG_XRF_21	12N	289086	3770828	31299	3.13
AUG_XRF_22	12N	289086	3770828	27962	2.80
AUG_XRF_23				869	0.09
AUG_XRF_24	12N	289343	3770944	42	0.00
AUG_XRF_25	12N	289343	3770944	34	0.00