# **ASX** Announcement

**10 FEBRUARY 2022** 



# COPPER INTERCEPTED IN MAIDEN **DRILLING CAMPAIGN**

#### **HIGHLIGHTS**

- Assays from M3 Mining's maiden drilling campaign at the Victoria Bore Copper Project confirm polymetallic mineralisation.
- Downhole electromagnetic (DHEM) surveys completed on three holes identified several off-hole conductors not defined by previous geophysical surveys highlighting significant potential for further sulphide mineralisation at Victoria Bore.
- Maiden drilling significant results include:
  - o 9m @ 1.03% Cu from 20-29m (VBRC006)
    - Including 2m @ 2.97% Cu, 13g/t Ag & 0.25% Pb from 25 27m
  - o 6m @ 0.42% Cu from 28 34m (VBRC007)
    - Including: 1m @ 1.66% Cu from 28 29m
  - 1m @ 0.80% Zn & 0.46% Pb from 99m EOH (VBRC010)
- Geochemical analysis of key elements confirms the presence of a primary base metal sulphide system at depth beneath the previously mined prospect, open along strike.
- Follow-up exploration program including further ground EM surveys, high impact drilling of untested conductors and tenement wide soil sampling to be expedited.

#### **EXECUTIVE DIRECTOR SIMON ELEY:**

"A fantastic result from our very first drilling activity at the Victoria Bore Copper Project. With such significant copper with associated polymetallic mineralisation alongside elevated values of zinc. lead, silver, and cobalt in early drilling we are well placed to continue this momentum. The initial drilling results combined with the DHEM survey have provided us with increased confidence in the overall potential of the tenement package to host additional base metal sulphide deposits. M3 Mining intends to expedite follow up geophysics and drilling to test the newly discovered conductors and further delineate additional EM anomalies for drill testing."





M3 Mining Limited (ASX: M3M) (M3 Mining, the Company) is pleased to announce successful first pass exploration drilling results at the Victoria Bore Copper Project, located approximately 130km southeast of Exmouth, WA.

A total of 1,128m of reverse circulation (RC) drilling was completed by Strike Drilling in November 2021. Ten of the eleven holes completed intercepted copper and/or base metal mineralisation and the DHEM survey completed post-drilling has identified several off-hole conductors that remain untested.

The recent drilling indicates that Victoria Bore potentially hosts a large sulphidic system beneath the historically mined area which remains open along strike and at depth. The results illustrate certain areas of the system have encouraging levels of base metal mineralisation.

While the results warrant follow-up drill testing to delineate the extent of intercepted mineralisation, the presence of elevated base metals calls for large-scale soil sampling across the tenement package to potentially identify new zones of base metal sulphide mineralisation.

Following this successful maiden exploration program, M3 will implement a systematic exploration program across the entire tenement package, which has never been undertaken and aim to provide a higher degree of geological understanding of this complex, but exciting area.

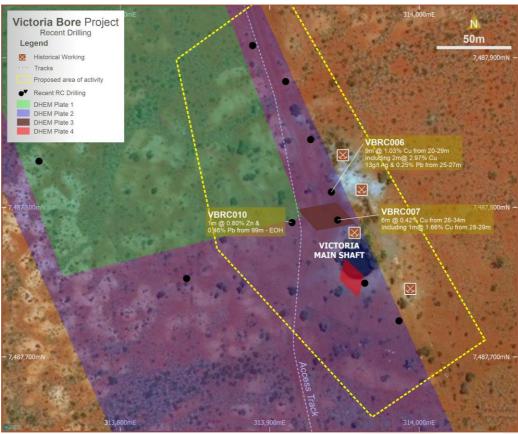


Figure 1 – Plan View of November 2021 RC Program at Victoria Bore Copper Project





#### **Victoria Bore Copper Project Drilling Summary**

Eleven inclined holes totalling 1,128m (VBRC001- VBRC011) with depth ranging from 52m to 250m were drilled at the Victoria Bore Copper Project in areas that have previously not been tested (Figure 1). The drill samples were sent to Jinning Testing & Inspection Laboratory for gold (Fire Assay) and multi-element 4-acid digest (34 elements). The multi-element assay results were assessed using IoGas and Micromine software.

The drilling was targeting ground MLEM targets (T1 & T2) that were identified in 2012. The MLEM survey identified the targets as shallow, relatively strong late time conductors that could possibly be associated with copper mineralisation (Figure 2).

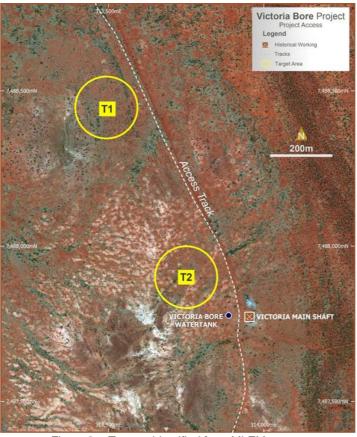


Figure 2 – Targets identified from MLEM survey.

The drilling intersected both MLEM targets, confirming the presence of a large sulphide system at Victoria Bore, beneath the old workings in the fresh rock. The results confirm that T2 has elevated levels of copper, silver, lead, and zinc.

The sulphide mineralisation occurred between the contact of a felsic and mafic schist. Within the contact zone, interbedded graphitic shale and sediments were present with varying thickness intersected between holes.





#### **Victoria Bore DHEM Surveys**

GAP geophysics were engaged to undertake Downhole Electromagnetic (DHEM) surveys on four of the deeper holes from the November 2021 RC Program. The surveys were completed shortly after the RC drilling program ended, in holes cased with PVC.

GAP Geophysics used a 150A GeoPak High Power (HPTX-70) transmitter, loop sizes of 200m x 200m and 250m x 250m, combined with an EMIT Digi-Atlantis (B-Field) downhole probe. The geophysics activity was successful in surveying three holes, VBRC001 (202m), VBRC010 (100m) & VBRC011 (202m).

Drill hole VBRC001 successfully intersected the original MLEM conductive targets at ~130m down hole coinciding with minor mineralisation. The intersected conductor extends several hundred meters along strike and at depth. This presents an opportunity for follow up drilling to test for mineralisation of this conductor along strike.

A secondary off-hole anomaly was detected whilst surveying VBRC001. The anomaly is up-dip and slightly south of the collar. The anomaly has been modelled with limited size (25m x 25m) but is very conductive. Analysis indicates that this could possibly represent a localised mineralised zone.

Although this secondary target is relatively shallow and modelled with a strong conductance, the small size makes it invisible in the historical ground MLEM when adjacent to the larger zones.

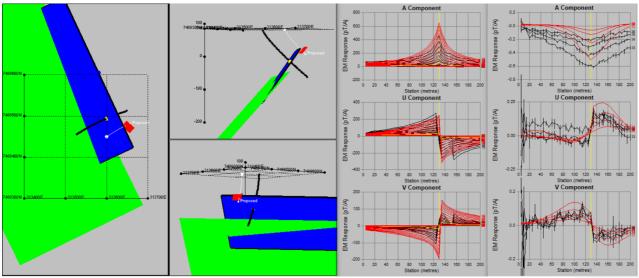


Figure 3 - VBRC001 DHEM Results and modelled target plates.

The other two holes that were surveyed, VBRC010 and VBRC011 are only separated by 80m so were modelled in conjunction with one another. Both holes successfully intersected extensions of the original MLEM models in this area. Both zones had elevated copper samples up to ~3,000ppm within 5m of the modelled plate.





The main conductive zone extends deeper as well as down-dip of VBRC011, indicating the sulphide system extends along strike and warrants drill-testing at depth to explore for further elevations in copper, silver, zinc, and lead.

Similar to VBRC001, there appears to be secondary DHEM activity in both VBRC010 & VBRC011 that is unrelated to the MLEM models. A localised zone up-dip and slightly south of VBRC011 was detected. The modelled plate of 20m² is very conductive and could represent further localised mineralisation. A similar anomaly was detected up-dip of VBRC010, possibly in the vicinity of VBRC006 which intersected high copper values up to ~3%. Both of these anomalies are additional targets for future drill-testing at Victoria Bore.

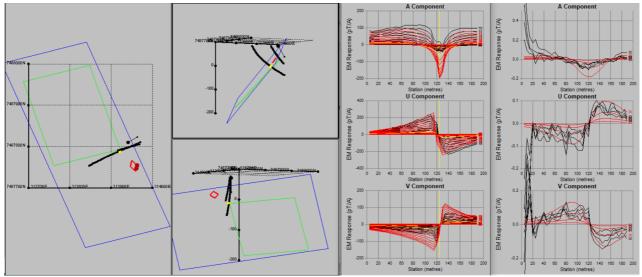


Figure 4 – VBRC011 DHEM Results and modelled target plates.

The next steps from an EM perspective will involve deeper penetrating surveys to further explore for primary sulphide targets at depth. High powered ground EM would allow highly conductive targets to be identified underneath the existing modelled conductive zones. In addition to ground EM, airborne magnetic surveys may also be considered to improve the structural understanding of the Victoria Bore Copper Project.

-END-

This announcement has been authorized by the Board of M3 Mining Ltd.

For further information please contact:

Simon Eley

Executive Director M3 Mining Ltd

T +61 8 6365 5200

E info@m3mining.com.au

Media

David Tasker Chapter One Advisors

**T** +61 433 112 936

E dtasker@chapteroneadvisors.com.au





### **About M3 Mining**

M3 Mining Limited (ASX:M3M) is a Perth-based mineral exploration company focussed on creating value for shareholders through exploration and development of a high-quality copper and gold exploration portfolio. M3 Mining's projects are strategically located in regions surrounded by majors and has experienced minimal modern, systematic exploration across both projects. The Company's strategy is to apply a systematic approach to the assessment and prioritisation of its projects, all of which have the potential to produce material discoveries.

The information in this announcement that relates to exploration results is based on and fairly represents information compiled by Jeremy Clark, a competent person who is a member of the AusIMM. Jeremy Clark is the sole director of Lily Valley International Pty. Ltd. Jeremy Clark has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves. Jeremy Clark consents to the inclusion in this announcement of the matters based on his work in the form and context in which it appears.

Appendix 1 – Drilling Hole Information and Significant Drill Intercepts

Hole ID	Easting (m)	Northing (m)	Elevation (m)	Depth (m)	Dip (º)	Azimuth (°)
VBRC001	313,526	7,488,454	84	202	90	0
VBRC002	313,746	7,487,831	92	250	90	0
VBRC003	313,889	7,487,908	90	62	60	060
VBRC004	313,911	7,487,884	90	52	60	060
VBRC005	313,928	7,487,845	87	52	60	060
VBRC006	313,941	7,487,810	87	52	60	060
VBRC007	313,946	7,487,791	89	52	60	060
VBRC008	313,964	7,487,749	88	52	60	060
VBRC009	313,987	7,487,724	86	52	60	060
VBRC010	313,915	7,487,790	89	100	60	060
VBRC011	313,844	7,487,752	89	202	60	060

Note: Collar are in UTM system.

Intercept
1m @ 0.11% Cu from 60 - 61m
1m @ 0.14% Cu from 14 - 15m
1m @ 0.11% Cu from 19 - 20m
1m @ 0.16% Zn from 44 - 45m
1m @ 0.10% Cu from 4 - 5m
7m @ 0.10% Zn & 0.037% Pb from 31 - 38m
1m @ 0.20% Cu from 11 - 12m





Hole ID	Intercept
VBRC006	9m @ 1.03% Cu from 20 - 29m
VBRC006	Including: 2m @ 2.97% Cu, 13g/t Ag & 0.25% Pb from 25 - 27m
VBRC006	1m @ 0.10% Zn from 39 - 40m
VBRC007	1m @ 0.1% Cu from 4 - 5m
VBRC007	6m @ 0.42% Cu from 28 - 34m
VBRC007	Including: 1m @ 1.66% Cu from 28 - 29m
VBRC007	1m @ 0.13% Zn from 46 - 47m
VBRC008	2m @ 0.11% Cu from 3 - 5m
VBRC008	9m @ 0.15% Cu from 24 - 33m
VBRC009	5m @ 0.13% Cu from 12 - 17m
VBRC010	1m @ 0.20% Cu from 32 - 33m
VBRC010	7m @ 0.14% Cu from 54 to 61m
VBRC010	1m @ 0.23% Zn from 65 - 66m
VBRC010	1m @ 0.80% Zn & 0.46% Pb from 99-100m (Open at depth)
VBRC011	1m @ 0.16% Cu from 115 - 116m
VBRC011	1m @ 0.15% Cu from 122 - 123m
VBRC011	3m @ 0.33% Cu from 130 - 133m
VBRC011	2m @ 0.12% Cu & 0.08% Pb from 162 - 164m

# Appendix 2 – JORC Table

# JORC Code, 2012 Edition - Table 1 report - Drilling

Section 1 Sampling Techniques and Data

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

Criteria	Commentary
Sampling techniques	<ul> <li>Samples at within the Projects were collected using Reverse Circulation (RC). Holes were generally angled at 60°. Given the status of the Projects this is considered reasonable.</li> <li>RC samples were collected every 1m using industry standard methods. All samples were submitted as 1m samples.</li> <li>All samples were crushed and split at the independent international accredited laboratory, with up to 3kg pulverised, with 50g samples analysed by Industry-standard methods.</li> <li>The sampling techniques used are deemed appropriate for the style of mineralisation and exploration undertaken.</li> <li>All sample preparation was completed by independent international accredited laboratories.</li> </ul>
Drilling techniques	RC Drilling was undertaken by Strike Drilling. Industry Drilling methods and equipment were utilised.





Criteria	Commentary
	To ensure sample integrity and RC sample recovery and quality included the use of "booster" air pressure.
Drill sample recovery	<ul> <li>Sample recovery and condition data are noted in geological comments as part of the logging process for RC drilling.</li> <li>No quantitative twinned drilling analysis has been undertaken. No relationship was able to be determined due to limited data.</li> </ul>
Logging	<ul> <li>All holes were field logged by contract geologists using established company procedures during the exploration period. Lithological, alteration and mineralogical nomenclature of the deposit, as well as sulphide content, were recorded.</li> <li>Logging is suitable for the assessment of exploration potential.</li> <li>All drill holes were logged in full.</li> <li>Logging was qualitative and quantitative in nature.</li> </ul>
Sub- sampling techniques and sample preparation	<ul> <li>1m cyclone splits were taken in the field for RC holes. Samples were prepared and analysed at Jinning for all M3 exploration which encompasses the majority of exploration results presented in this Report. Samples were pulverized so that each sample had a nominal 85% passing 75 microns. A 4-acid digest (HNO3-HBr-HF-HCI) was used for 31 multi-elements. This also included Co, Cu, Ni, Zn.</li> <li>Based on the information provided sample sizes are considered appropriate to correctly represent interpreted mineralisation given the status of the projects and allow an assessment of exploration potential, the thickness and consistency of the intersections, the sampling methodology and assay value ranges for Au.</li> <li>Industry Standard QAQC was utilised included standard, blanks, and duplicates.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>All samples were assayed by industry-standard techniques.</li> <li>Typical analysis methods are detailed in the previous section and are considered 'near total' values.</li> <li>Routine 'standard' (mineralised pulp) Certified Reference Material (CRM) was inserted by M3 at a nominal rate of 1 in 60 samples. Routine 'blank' material (unmineralised sand) was inserted at a nominal rate of 1 in 60 samples. No significant issues were noted. M3 notes duplicates were inserted at a ratio of 1:20 ratio for all samples. The analytical laboratories provided their own routine quality controls within their own practices as per international ISO standards. No significant issues were noted.</li> </ul>
Verification of sampling and assaying	<ul> <li>Based on the digital data review CP finds no reason to question the veracity of the exploration results provided and reported in this Report.</li> <li>No twin holes have been completed due to the early stage of exploration.</li> </ul>
Location of data points	<ul> <li>Drill collars were set out using a handheld GPS and the final collar were collected using a handheld GPS. Sample locations were collected using a handheld GPS and are considered acceptable for the nature of this programme.</li> <li>Downhole surveys were completed by the various drilling contractors using the Reflex EZ-TRACK with a measurement taken every 30m downhole.</li> <li>Holes without downhole survey use planned or compass bearing/dip measurements for survey control.</li> <li>GPS coordinates for each collar was undertaken using the standard inbuilt GPS systems grid system – WGS84 UTM Zone 50.</li> </ul>





Criteria	Commentary
Data spacing and distribution	<ul> <li>The spacing and location of the majority of the drilling in the projects is, by the nature of early exploration, variable.</li> <li>The spacing and location of data is currently only being considered for exploration purposes.</li> <li>Due to the early stage of exploration, the drill spacing is not considered to be suitable to estimate and report Mineral Resources.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Limited drilling has been completed to confirm the optimal drilling orientation.</li> <li>Exploration Results are reported, and no estimate is completed as further works are required.</li> </ul>
Sample security	<ul> <li>M3 had a strict chain of custody procedure that were adhered to for drill samples.</li> <li>All sample bags were pre-printed and pre-numbered. Sample bags were placed in bulka bags and closed with a zip tie such that no sample material could spill out and no one could tamper with the sample once it left the company's custody.</li> </ul>
Audits or reviews	CP's review is independent of the Company and all previous owners.

# JORC Code, 2012 Edition - Table 1 Report - Drilling

Section 2 Reporting of Exploration Results

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

Criteria	Commentary
Mineral tenement and land tenure status	<ul> <li>The Victoria Bore Project consists of one exploration licence and seven exploration licence applications.</li> <li>No joint venture or royalties are understood to impact the tenements.</li> <li>No known impediments are understood to occur to allow further exploration.</li> </ul>
Exploration done by other parties	Limited exploration has been completed, historical rock chip sampling as well as a MLEM was completed prior to this RC drilling program. Drilling as per this release has recently been undertaken by M3M. Exploration is considered to be at an early stage across all tenements.
Geology	The data supplied indicates mineralisation within the tenements is potentially in line with the commonly observed shear hosted, structurally control mineralisation style. There is limited understanding of the mineralisation to date.





Drill hole Information	Provided in Appendix 1
Data aggregation methods	<ul> <li>No high-grade cuts were applied,</li> <li>Appendix 1 details all results above 0.10% Cu. The report includes only samples above this grade with no internal waste included.</li> <li>No metal equivalence was utilised.</li> </ul>
Relationship between mineralisation widths and intercept widths	<ul> <li>The geometry of the mineralisation is not confirmed, however, all results reported are considered.</li> <li>All results were reported as down holes, as noted in the relevant sections.</li> </ul>
Diagrams	A suitable map is included in the body of the announcement.
Balanced reporting	<ul> <li>Key results and conclusions have been included in the body of the announcement. Geophysical survey information is provided as required including station spacing and technique. These are considered an industry standard for the exploration methods employed.</li> </ul>
Other substantive exploration data	<ul> <li>In addition to the geophysical and drill hole information in this release, historical rock sampling and drilling data mentioned in the release can be found in previous releases and detailed in the Independent Geologist Report in the prospectus.</li> </ul>
Further work	Follow up geophysical, drilling and soil sampling is planned during 2022.

### JORC Code, 2012 Edition – Table 1 report - DHEM

#### Section 1 Sampling Techniques and Data

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

Criteria	Commentary		
Sampling techniques	DHEM Geophysical surveys reported. All geophysical surveys were undertaken using standard methods as detailed below.		
Drilling techniques	Not relevant for geophysical surveys.		
Drill sample recovery	Not relevant for geophysical surveys.		
Logging	Not relevant for geophysical surveys.		





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Criteria	Commentary
Sub- sampling techniques and sample preparation	Not relevant for geophysical surveys.
Quality of assay data and laboratory tests	Not relevant for geophysical surveys.
Verification of sampling and assaying	Not relevant for geophysical surveys.
Location of data points	GPS coordinates for each survey site were undertaken using the standard inbuilt GPS systems grid system – WGS84 UTM Zone 50.
Data spacing and distribution	Refer to Table 1.
Orientation of data in relation to geological structure	Not relevant for geophysical surveys.
Sample security	All data from the surveys was collected and stored digitally by third parties (GAP Geophysics) to M3M.
Audits or reviews	There were no audits or external reviews.

# JORC Code, 2012 Edition - Table 1 Report - DHEM

### Section 2 Reporting of Exploration Results

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

Criteria	Commentary
Mineral tenement and land tenure status	<ul> <li>The Victoria Bore Project consists of one exploration licence and seven exploration licence applications.</li> <li>No joint venture or royalties are understood to impact the tenements.</li> <li>No known impediments are understood to occur to allow further exploration.</li> </ul>





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Criteria	Commentary
Exploration done by other parties	Limited exploration has been completed, historical rock chip sampling as well as a MLEM was completed. Drilling as per this release has recently been undertaken by M3M. Exploration is considered to be at an early stage across all tenements.
Geology	The data supplied indicates mineralisation within the tenements is potentially in line with the commonly observed shear hosted, structurally control mineralisation style. Limited understanding of the mineralisation occurs to date
Drill hole Information	Not relevant for geophysical surveys.
Data aggregation methods	Not relevant for geophysical surveys.
Relationship between mineralisation widths and intercept widths	Not relevant for geophysical surveys.
Diagrams	A suitable map is included in the body of the announcement.
Balanced reporting	Key results and conclusions have been included in the body of the announcement. Geophysical survey information is provided as required including station spacing and technique. These are considered an industry standard for the exploration methods employed.
Other substantive exploration data	In addition to the geophysical and drill hole information in this release, historical rock sampling and drilling data mentioned in the release can be found in previous releases and detailed in the Independent Geologist Report in the prospectus.
Further work	Follow up geophysical, drilling and soil sampling is planned during 2022.

