ASX Announcement

20 JANUARY 2023

VICTORIA BORE COPPER PROJECT EXPLORATION UPDATE

HIGHLIGHTS

- **Assay results have been received for the Company's second reverse circulation (RC) drilling program undertaken at the Victoria Bore Copper Project**
- **The three-hole program tested strong EM conductors along strike from the high-grade historic copper occurrence at Victoria Bore. It is considered the drill holes intercepted the mineralised sequence but only returned mildly anomalous base metal values**
- **Graphitic shale units intercepted by the drilling are considered to be the source of the strong EM conductors. Assaying confirms the Total Graphitic Carbon (TGC) content as follows:**
  - **4m at 9.9% TGC from 211m & 5m at 8.0% TGC from 220m (VBRC012)**
  - **2m at 6.0% TGC from 71m & 2m at 5.8% TGC from 89m (VBRC014)**
- **Graphite properties including flake size and distribution still yet to be determined**
- **Following the receipt of drilling results and the recent high resolution aeromagnetic and radiometric survey data a full project review is now being undertaken by a specialist consultant group to assess the Victoria Bore mineralised trend as well as to generate new regional targets**

M3 Mining Limited (ASX: M3M) (**M3 Mining** or the **Company**) is pleased to provide an update on the recently completed RC drilling program at the Victoria Bore Copper Project (**Victoria Bore** or the **Project**), located in the Pilbara region of Western Australia, approximately 120km south of Onslow, WA.

EXECUTIVE DIRECTOR SIMON ELEY:

"The drilling program completed in October identified graphitic shale units to be the source of the geophysical targets. In addition, trace occurrences of copper, silver, nickel, zinc and lead were intersected in all holes which expands the base metal halo that surrounds the historic mine.

The continued base metal mineralisation being intercepted at Victoria Bore is still yet to be explained by a succinct theoretical model. The Company is awaiting analysis from a consulting group to provide further understanding on the source of the previously mined high grade copper at Victoria Bore. The group are also reviewing the aeromagnetic and radiometric data recently obtained which will provide us with priority regional targets across the companies 33,000 ha tenure.

The Company is currently investigating the properties of the graphite at Victoria Bore and will update the market in due course. "

Registered Address
M3 Mining Limited
ACN 644 548 434
ABN 98 644 548 434

Level 1, 3 Ord Street,
West Perth, WA 6005
www.m3mining.com.au

Directors
Russell Davis - Non-Executive Chairman
Simon Eley - Executive Director
Eddie King - Non-Executive Director

info@m3mining.com.au
+61 08 6365 5200

Projects
Edjudina Gold Project (100% Owned)
Victoria Bore Copper Project (100% Owned)

Shares on Issue	46.5M
Share Price	$0.125
Market Cap	$5.8M
ASX Code	M3M

Victoria Bore Copper Project Drilling Summary

Three holes, totalling 607m were drilled in October 2022, 1,000m to the northwest of the historic Victoria Bore mine. All holes were targeting strong EM conductors, and each was successfully intercepted. Trace base metal occurrences were encountered in all holes which expands the footprint of known mineralisation surrounding the historic Victoria Bore mine a further 400m to the northwest to a total strike of 1,250m. (see Figures 1, 2). Previously announced geophysical targets have been effectively tested and are now known to be coincident with a graphitic shale.

VBRC012 was designed to test the strong anomaly detected by the SQUID Fixed-loop EM (FLEM) survey undertaken last year (see *"M3 Mining discovers strong EM conductor at Victoria Bore"* released to the ASX on 27 July 2022). Several graphite packages were intersected between 185 – 225m with remaining stratigraphy consistent with previous drilling which consisted of variably altered meta-sediments. Base metal highlights downhole, include 7m at 1.3g/t Ag, 162ppm Pb and 497ppm Zn from 284m. The Downhole EM (DHEM) survey identified three conductive zones that aligned with intersected graphite, the combined conductance or 'stacking effect' sufficiently explains the source of the previously identified SQUID FLEM target.

VBRC013 was designed to test a trend to the west that was detected by the SQUID FLEM survey along with a coincident magnetic anomaly (see *"Victoria Bore magnetic and radiometric survey data received"* released to the ASX on 22 November 2022). The hole intersected meta-sediments and multiple quartzite bands. The DHEM survey detected spikes that surrounded the quartzite which is believed to have caused a 'channelling effect' which is what the SQUID FLEM has detected. The magnetic responses were only associated with meta-sediments with slightly higher iron content, thus downgrading the importance of the magnetic target. What cannot be explained by the DHEM survey is the 0.1% Cu interval encountered from 146-147m downhole along with the other fourteen separate metre-wide intervals that returned > 200ppm Cu. This mineralisation was intercepted in a trend 200m to the west of all previous holes and represents a new separate mineral occurrence.

VBRC014 was designed to test the strongly conductive off-hole target detected in a prior DHEM survey (see *"Copper Intercepted in maiden drilling campaign"* released to the ASX on 10 February 2022). The target plate was intercepted and is consistent with the logged intervals of graphite similarly encountered in ***VBRC012***. The previously detected DHEM response is believed to have been caused by a 'current-channelling effect' that has falsely amplified the conductive response.

All three targets are sufficiently tested for base metals from a geophysical perspective, however, a model explaining the mineralisation in all holes and the wider area is still yet to be determined. This will be the focus of future work as an external consultant group are engaged to analyse all previously collected data. The group will also be reviewing the recently obtained aeromagnetic and radiometric data to identify regional targets over the entire tenement package (see Figure 4).

The graphite in ***VBRC012*** could be the same unit as seen in ***VBRC014***, 440m away along an adjoining NNW conductive trend (see Figure 3). Studies are underway to determine specific properties of the graphite, including flake size and mineral nature. If the analysis is encouraging, the 1,400m long conductive trend represents an exciting exploration corridor for further drilling.

The Company encourages readers to take into consideration the early nature of these exploration results. Investigations into mineral content and flake size determination are yet to be completed.

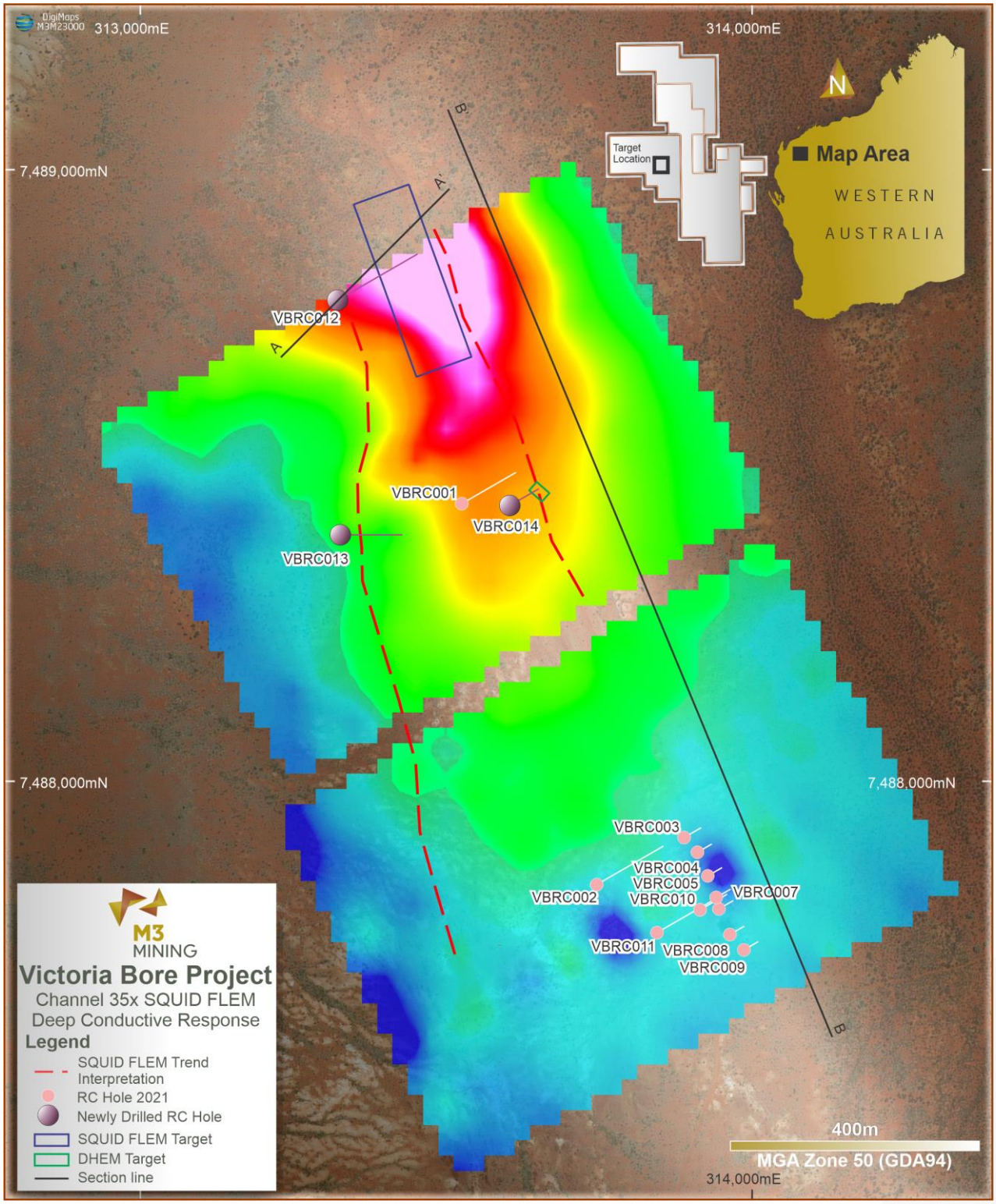

Figure 1 – Plan view of drilling at the Victoria Bore Copper Project showing deep conductive response

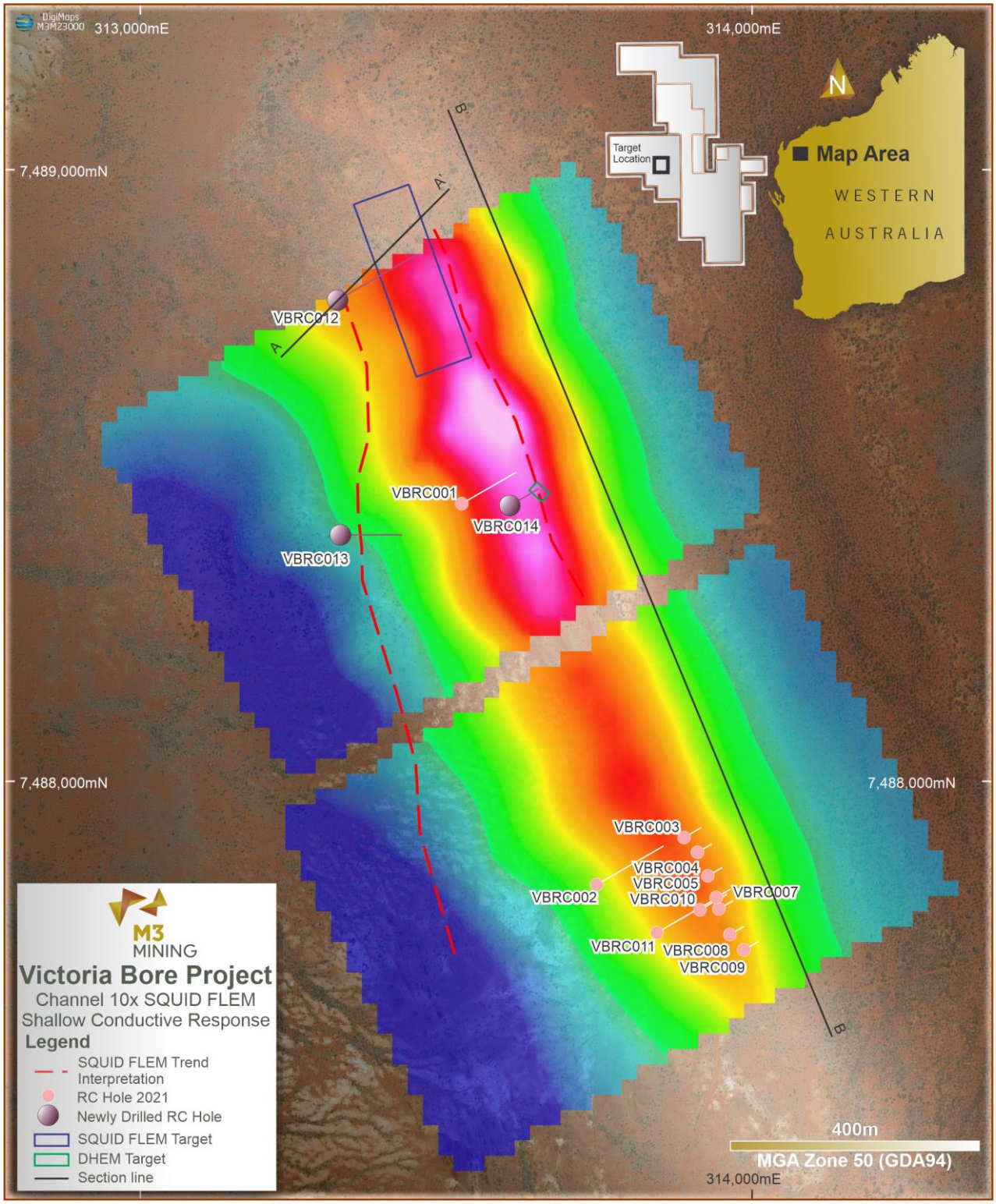

Figure 2 – Plan view of drilling at the Victoria Bore Copper Project showing shallow conductive response

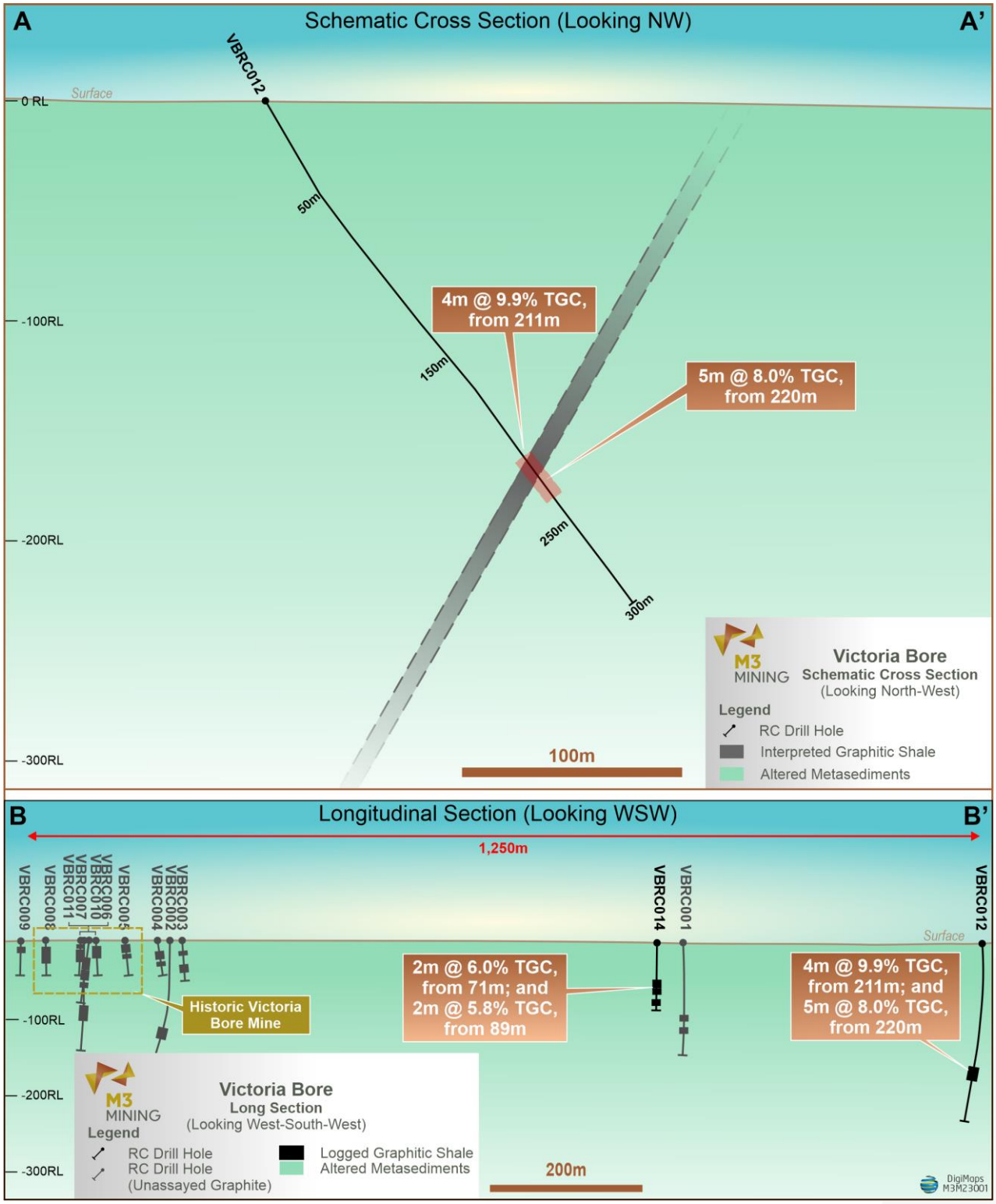

Figure 3 – Section view of drilling at the Victoria Bore Copper Project

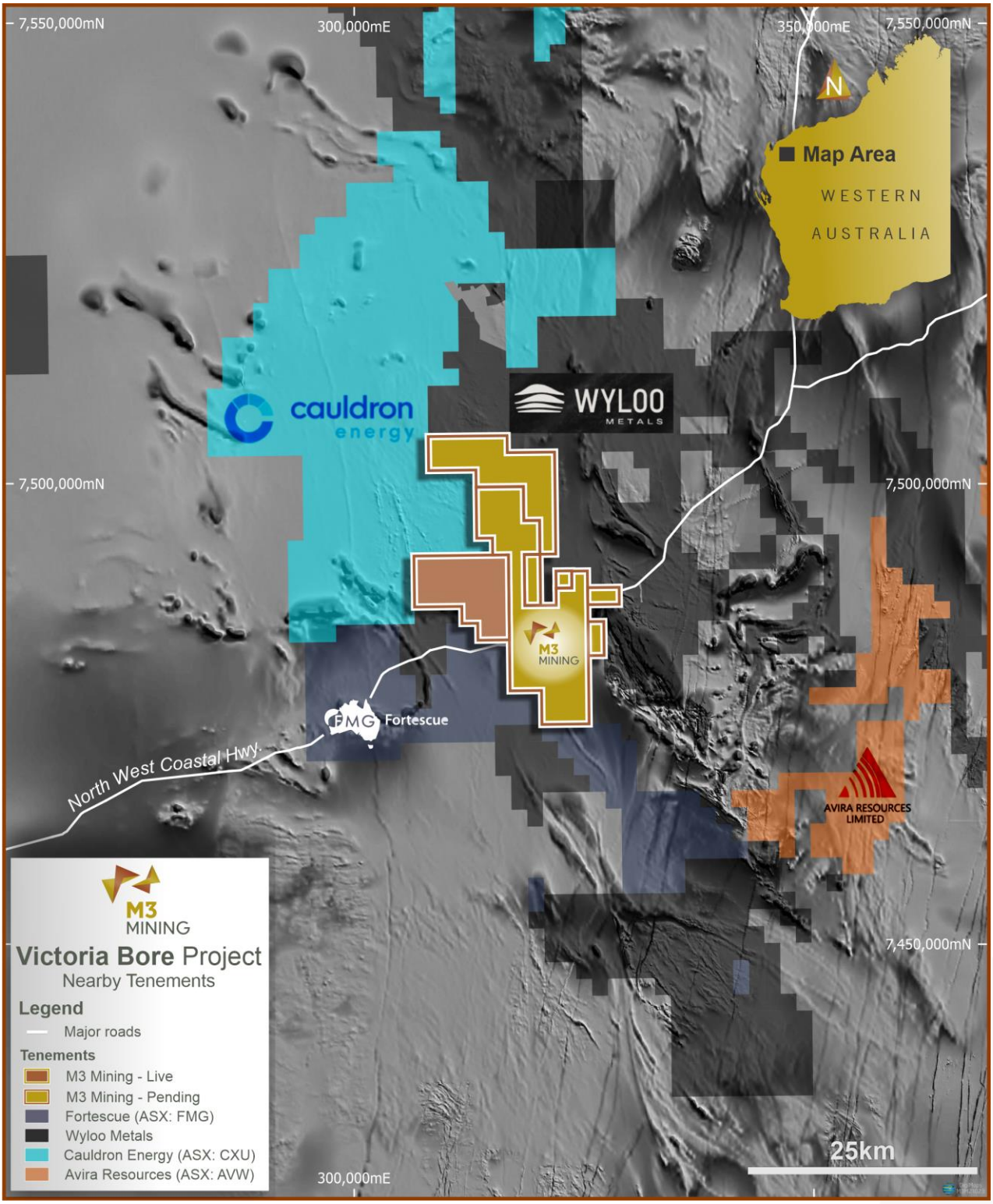

Figure 4 – Overview of the Victoria Bore Copper Project

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This announcement has been authorised for issue by the Board of M3 Mining Limited in accordance with ASX Listing Rule 15.5.

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 focused 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 Highlight Drill Intercepts

Highlight Base Metal Intercepts (Ag > 1 g/t or Cu/Ni/Pb/Zn > 200ppm)

Hole ID	Sample ID	From	To	Ag (g/t)	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)
VBRC012	VBRC3011	10	11	0.0	203	54	12	90
VBRC012	VBRC3012	11	12	0.0	306	53	22	118
VBRC012	VBRC3021	19	20	0.0	214	56	18	99
VBRC012	VBRC3033	31	32	0.0	245	59	13	92
VBRC012	VBRC3125	118	119	0.0	66	37	306	76
VBRC012	VBRC3146	138	139	1.5	91	54	18	95
VBRC012	VBRC3154	146	147	0.0	521	77	7	137
VBRC012	VBRC3155	147	148	0.0	233	48	4	162
VBRC012	VBRC3207	196	197	0.0	216	67	10	114
VBRC012	VBRC3238	226	227	0.0	52	42	71	279
VBRC012	VBRC3239	227	228	0.0	37	41	281	1,176
VBRC012	VBRC3241	228	229	1.3	32	62	71	410
VBRC012	VBRC3242	229	230	1.1	69	57	63	258
VBRC012	VBRC3244	231	232	0.0	41	78	56	208
VBRC012	VBRC3245	232	233	0.0	63	69	29	220
VBRC012	VBRC3246	233	234	1.1	63	68	30	199
VBRC012	VBRC3248	235	236	0.0	104	63	321	127
VBRC012	VBRC3250	237	238	0.0	46	69	36	258
VBRC012	VBRC3255	242	243	1.5	96	96	94	179
VBRC012	VBRC3257	244	245	0.0	85	93	22	205
VBRC012	VBRC3258	245	246	0.0	82	103	32	252
VBRC012	VBRC3259	246	247	0.0	69	84	16	201
VBRC012	VBRC3261	247	248	0.0	91	77	18	213
VBRC012	VBRC3294	279	280	1.5	31	63	51	165
VBRC012	VBRC3297	282	283	0.0	12	62	86	451
VBRC012	VBRC3298	283	284	0.0	37	83	74	576
VBRC012	VBRC3299	284	285	1.4	25	73	253	710
VBRC012	VBRC3301	285	286	1.6	43	78	377	772
VBRC012	VBRC3302	286	287	0.0	23	65	179	311
VBRC012	VBRC3303	287	288	1.1	31	66	82	516
VBRC012	VBRC3304	288	289	1.1	26	62	85	253
VBRC012	VBRC3305	289	290	1.2	46	74	54	590
VBRC012	VBRC3306	290	291	2.5	32	68	104	326
VBRC013	VBRC3368	49	50	0.0	253	55	14	157
VBRC013	VBRC3370	51	52	0.0	207	58	11	93
VBRC013	VBRC3406	85	86	2.2	72	25	11	84
VBRC013	VBRC3411	90	91	1.3	46	31	11	94
VBRC013	VBRC3417	96	97	0.0	235	51	8	119
VBRC013	VBRC3428	106	107	0.0	96	65	11	212
VBRC013	VBRC3453	130	131	0.0	201	59	13	116
VBRC013	VBRC3455	132	133	0.0	264	50	15	138
VBRC013	VBRC3458	135	136	1.2	178	60	22	68
VBRC013	VBRC3467	143	144	0.0	250	78	16	115
VBRC013	VBRC3468	144	145	0.0	491	74	19	127
VBRC013	VBRC3470	146	147	0.0	929	63	21	176
VBRC013	VBRC3484	159	160	0.0	271	44	6	148
VBRC013	VBRC3492	167	168	0.0	310	67	8	22
VBRC013	VBRC3497	172	173	0.0	330	64	7	47
VBRC013	VBRC3498	173	174	0.0	205	55	12	41
VBRC013	VBRC1246	176	177	0.0	213	62	6	59
VBRC013	VBRC1269	198	199	0.0	331	47	26	125
VBRC014	VBRC1336	62	63	0.0	105	80	12	227
VBRC014	VBRC1343	68	69	0.0	98	77	15	632
VBRC014	VBRC1362	86	87	0.0	53	53	10	227

Hole Location

Hole ID	Easting	Northing	Elevation	Depth	Azimuth	Dip
VBRC012	313,324	7,488,788	80	300	060	-60
VBRC013	313,328	7,488,404	86	200	090	-60
VBRC014	313,605	7,488,452	82	107	060	-60

Graphite Interceptions (TGC > 1.0%)

Hole ID	Sample ID	From	To	C_%	TGC_%	S_%
VBRC012	VBRC3196	186	187	1.62	1.4	0.38
VBRC012	VBRC3197	187	188	2.17	1.5	0.48
VBRC012	VBRC3207	196	197	2.27	1.7	1.19
VBRC012	VBRC3208	197	198	1.27	1.1	1.76
VBRC012	VBRC3209	198	199	5.24	4.6	2.36
VBRC012	VBRC3210	199	200	2.24	1.5	1.69
VBRC012	VBRC3223	211	212	8.01	7.3	2.8
VBRC012	VBRC3224	212	213	10.89	9.9	2.46
VBRC012	VBRC3225	213	214	10.5	9.6	2.41
VBRC012	VBRC3226	214	215	12.98	12.8	2.31
VBRC012	VBRC3228	216	217	3.21	3.1	1.3
VBRC012	VBRC3232	220	221	2.55	2.5	1.54
VBRC012	VBRC3233	221	222	6.93	6.5	2.82
VBRC012	VBRC3234	222	223	15.18	14.2	1.33
VBRC012	VBRC3235	223	224	10.96	10.6	2.56
VBRC012	VBRC3236	224	225	6.91	6.3	2.55
VBRC012	VBRC3237	225	226	1.21	1.2	1.59
VBRC014	VBRC1334	60	61	2.95	2.9	0.8
VBRC014	VBRC1335	61	62	4.34	4.3	0.8
VBRC014	VBRC1336	62	63	3.36	3.3	0.38
VBRC014	VBRC1337	63	64	1.38	1.3	0.79
VBRC014	VBRC1338	64	65	3.54	3	0.53
VBRC014	VBRC1339	65	66	1.2	1.2	0.75
VBRC014	VBRC1344	69	70	3.02	2.7	0.44
VBRC014	VBRC1346	71	72	7.54	7.4	1.36
VBRC014	VBRC1347	72	73	4.64	4.6	1.05
VBRC014	VBRC1365	89	90	4.03	3.8	1.27
VBRC014	VBRC1366	90	91	8.11	7.8	1.71

C_% - Total carbon percentage. TGC_% - Total graphitic carbon percentage. S_% - Total sulphur percentage

Appendix 2 – JORC Table

JORC Code, 2012 Edition – Table 1 report - Drilling

Section 1 Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	• 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. • RC samples were collected every 1m using industry standard methods. All samples were submitted as 1m samples. • 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 • The sampling techniques used are deemed appropriate for the style of mineralisation and exploration undertaken. • M3 understands all Sample preparation was completed by independent international accredited laboratories. • For graphite assay – only selective samples were chosen due to the visual non-mineralised nature of the material collected

Criteria	Commentary
Drilling techniques	• RC Drilling was undertaken by Strike Drilling. Industry Drilling methods and equipment were utilised. • To ensure sample integrity, recovery and quality the company used an auxiliary "booster" for increased air pressure.
Drill sample recovery	• Sample recovery and condition data are noted in geological comments as part of the logging process for RC drilling. • No quantitative twinned drilling analysis has been undertaken. No relationship was able to be determined due to limited data.
Logging	• All holes were field logged by the companies geologist using established company procedures during the exploration period. Lithological, alteration and mineralogical nomenclature of the deposit, as well as sulphide content, were recorded. • Logging is suitable for the assessment of exploration potential. • All drill holes were logged in full. • Logging was qualitative and quantitative in nature.
Sub-sampling techniques and sample preparation	• 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-HCl) was used for 25 multi-elements. Lead fire assay was used for Au detection • 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. • Industry Standard QAQC was utilised included standard, blanks, and duplicates
Quality of assay data and laboratory tests	• All samples were assayed by industry-standard techniques. • Typical analysis methods are detailed in the previous section and are considered 'near total' values. • Routine 'standard' (mineralised pulp) Certified Reference Material (CRM) was inserted by M3 at a nominal rate of 1 in 60 samples. Routine 'blank' material (sand) was inserted at a nominal rate of 1 in 60 samples. Routine 'field duplicates were inserted at a nominal rate of 1 in 60 samples No significant issues were noted. • The analytical laboratories provided their own routine quality controls within their own practices as per international ISO standards. No significant issues were noted. • Selected pulps for graphite assay were sent to Intertek Laboratories in Perth for Total Graphitic Carbon (TGC) analyses ○ A portion of the sample is dissolved in weak acid to liberate carbonate carbon. The residue is then dried at 420°C driving off organic carbon and then analysed by its sulphur-carbon analyser to give TGC content
Verification of sampling and assaying	• While no independent sampling was undertaken by M3 of the original drill samples, various CP's have reported the exploration results to JORC Code 2012. Based on the digital data review M3 finds no reason to question the veracity of the exploration results provided and reported in this Report. • No twin holes have been completed due to the early stage of exploration.
Location of data points	• 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. • Downhole surveys were completed by the various drilling contractors using the Reflex EZ-TRACK with a measurement taken every 30m downhole. • GPS coordinates for each collar was undertaken using the standard inbuilt GPS systems grid system – WGS84 UTM Zone 50.
Data spacing and distribution	• The spacing and location of the majority of the drilling in the projects is, by the nature of early exploration, variable. • The spacing and location of data is currently only being considered for exploration purposes. • Due to the early stage of exploration, the drill spacing is not considered to be suitable to estimate and report Mineral Resources.
Orientation of data in relation to geological structure	• Limited drilling has been completed to confirm the optimal drilling orientation. Exploration Results are reported, and no estimate is completed as further works are required.

Criteria	Commentary
Sample security	• M3 staff and contractors ensured a strict chain of custody procedures that are adhered to for drill samples. • 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.
Audits or reviews	• M3's review is independent of the Company and all previous owners.

Section 2 Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	• The Victoria Bore Copper Project consists of one exploration license and seven exploration licence applications • No joint venture or royalties are understood to impact the tenements. • No known impediments are understood to occur to allow further exploration.
Exploration done by other parties	• Limited exploration has been completed, historical rock chip sampling as well as a MLEM was completed along with a first pass RC program as released previously. • 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	• Provided in Appendix 1
Data aggregation methods	• No high-grade cuts were applied • Appendix 1 details all results where Ag > 1 g/t or Cu/Ni/Pb/Zn > 200ppm. The report includes only samples above this grade with no internal waste included. • No metal equivalence was utilised.
Relationship between mineralisation widths and intercept widths	• The geometry of the mineralisation is not confirmed, however, all results reported are considered. • All results were reported as down holes.
Diagrams	• Suitable figures have been included in the body of the announcement.
Balanced reporting	• Key results and conclusions have been included in the body of the announcement.
Other substantive exploration data	• Historical 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 interpretation is planned to better understand the source of mineralisation as well as newly acquired magnetic and radiometric data.

JORC Code, 2012 Edition – Table 1 report – Downhole EM (DHEM)

Section 1 Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	• DHEM Geophysical surveys reported. All geophysical surveys were undertaken using standard methods as detailed below. ○ Contractor: Southern Geoscience Field Services ○ Transmitter Current: 70A ○ Loop Size: 200x200m ○ Down Hole Probe: EMIT Digi-Atlantis (B-Field) ○ Transmitter: Georesults DRTX ○ Base Frequency: 2.083Hz ○ Reading Interval: 5m
Drilling techniques	• Not relevant for geophysical surveys.
Drill sample recovery	• Not relevant for geophysical surveys.
Logging	• Not relevant for geophysical surveys.
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 was 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 DHEM surveys was collected and stored digitally by third parties (GAP Geophysics) and M3M.
Audits or reviews	• There were no audits or external reviews.

Section 2 Reporting of Exploration Results

Criteria	Commentary

Mineral tenement and land tenure status	• The Victoria Bore Copper Project consists of one exploration license and seven exploration licence applications • No joint venture or royalties are understood to impact the tenements. • No known impediments are understood to occur to allow further exploration.
Exploration done by other parties	• Limited exploration has been completed, historical rock chip sampling as well as a MLEM was completed along with a first pass RC program as released previously. • 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	• Suitable figures have been included in the body of the announcement.
Balanced reporting	• Key results and conclusions have been included in the body of the announcement.
Other substantive exploration data	• Historical 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 interpretation is planned to better understand the source of mineralisation as well as newly acquired magnetic and radiometric data.