ASX Announcement

7 AUGUST 2023



M3 Mining Bolsters Edjudina Gold Project with New Tenement Applications

HIGHLIGHTS

- M3 Mining is the sole applicant on five prospective tenement applications
- New applications spanning 18km² brings Edjudina Gold Project total to 319km²
- Cassandra Prospect: defined by 2km x 1.5km arsenic geochemical anomaly¹
 - Prior Drilling: 2m at 3.90 g/t Au from 33m (QRC030)¹
- Kilkenny Prospect: NNW geochemical trend with gold-in-soil values up to 60ppb Au¹

M3 Mining Limited (ASX:M3M) (M3 Mining or the Company) is pleased to advise that five additional tenements have been applied for at the Edjudina Gold Project (Edjudina or the Project).

The tenements surround Solstice Minerals (ASX:SLS) Yarri Project which contains the recently announced gold mineral resource at Hobbes². In respect to M3 Mining's current tenement portfolio, the tenure is located approximately 18km to the south-east of the El Capitan and Jump Up prospects along the prospective Keith-Kilkenny Tectonic Zone.

E 31/1367 is on the eastern side of the tenement group and is located 3km west of Northern Star's (ASX:NST) Porphyry mine operations. The ground is situated on a lithological suite of felsic-intermediate units and interpreted intrusive granitoids.

E 31/1363 – 1366 are on the western side of the tenement group and are situated along the NNW trending Yilgangi mineralised corridor consisting of 'Pig Well Graben' sediments and intrusive porphyritic quartz monzonite / syenite bodies. Gold mineralisation in the area typically consists of quartz-pyrite-gold vein stockworks within strongly haematite altered porphyritic units. The mineralisation previously intersected at the Cassandra prospect shows strong similarities to this style and the interpreted geology indicates that the prospect is an encouraging exploration target³.

EXECUTIVE DIRECTOR SIMON ELEY:

"M3 Mining is the sole applicant for five tenements adjoining the Edjudina Gold Project, a contested area bordered by Northern Star, Solstice Minerals, and Nexus Minerals. Among these tenements, two already hold known gold occurrences, and one boasts multiple historic drill intersections above 1 g/t Au. This strategic move expands the project's size, and the Company eagerly awaits the tenements grants to commence exploration of this prospective ground."

 $^{^{3}}$ See SLS ASX Announcement, 28/04/22, "Prospectus" for additional details.



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Directors

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Projects

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

Shares on Issue 46.5M Share Price \$0.15 Market Cap \$7.0M ASX Code M3M

¹ See ORR ASX Announcement, 15/04/19, "March 2019 Quarterly Reports" for additional details.

 $^{^2}$ See SLS ASX Announcement, 22/03/23, "Robust Maiden Gold Mineral Resource at Hobbes" for additional details.



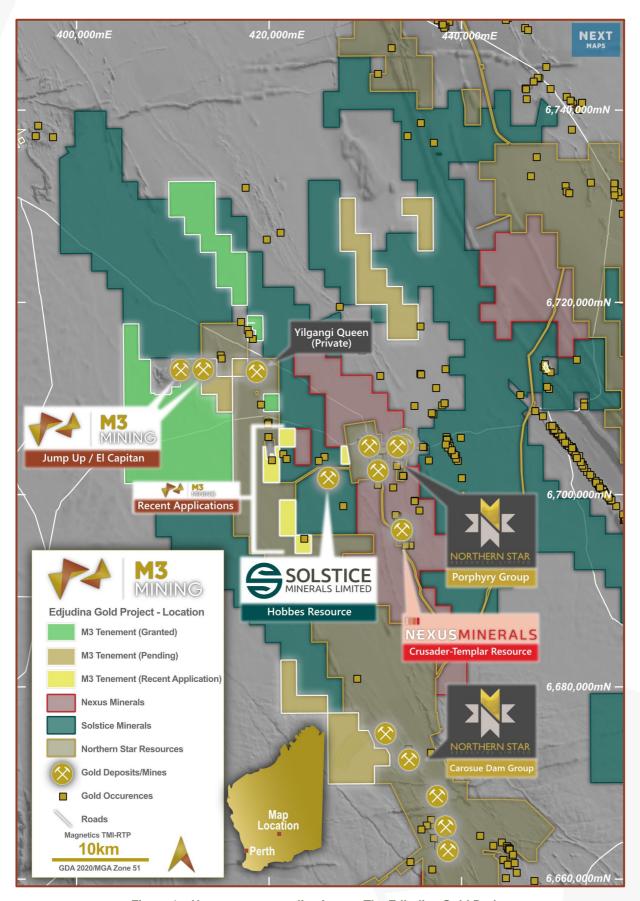


Figure 1 – New tenement applications at The Edjudina Gold Project





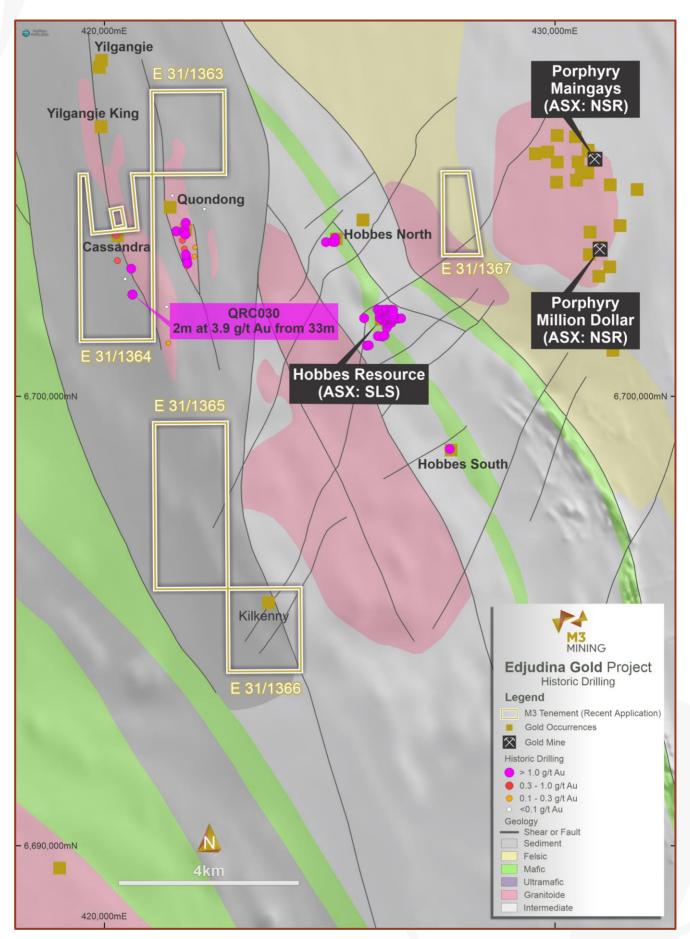


Figure 2 – Drilling surrounding new tenement applications





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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.

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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 base metal 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 A – Representative Gold Drillhole Intersections

A summary of all gold drillhole intersections presented in the figures and body of the announcement in the table below.

The significant gold intersections are a minimum of 2 m in length and greater than or equal to ≥1.00 ppm Au. No upper cut and a maximum of 2 m of internal dilution were used. Hole type: RAB – rotary air blast; AC – aircore; RC – reverse circulation; DD – diamond. The coordinates are in the UTM projection MGA 94 Zone 51. The coordinates, elevation, dip, and azimuth are rounded to the nearest metre and degree, respectively. The gold values are rounded to two decimal places. EOH – end of hole.

This threshold for reporting material intersections to be appropriate for the nature and style of gold mineralisation being considered and the developmental stage of the mineral asset.

Hole	Hole Type	East (m)	North (m)	Elevation (m)	Total Depth (m)	Dip (°)	Azimuth (°)	From (m)	To (m)	Interval (m)	Au (ppm)
HOBRC0001	RC	426,441	6,701,750	343	202	-60	87	64	68	4	3.39
								108	110	2	2.36
								47	67	20	3.46
HOBRC0002	RC	426,320	6,701,749	343	166	-61	91	71	83	12	2.20
								86	89	3	1.38
								157	160	3	1.34
								42	44	2	3.16
HOBRC0003	RC	426,280	6,701,750	343	101	-60	90	71	73	2	1.61
								95	100	5	1.26
								54	63	9	1.39
HOBRC0004	RC	426,240	6,701,748	343	137	-60	88	89	91	2	1.45
								99	107	8	1.23
								141	143	2	1.44
HOBRC0008	RC	426,259	6,701,648	343	195	-60	90	175	179	4	1.39
								192	194	2	1.43
HOBRC0009	RC	426,219	6,701,650	343	185	-60	90	178	185	7	3.50
HOBICOOOS	INC.	420,213	0,701,030	343	103	00	30	170	EOH		3.30
								56	58	2	1.66
HOBRC0011	RC	426,327	6,701,598	343	168	-60	89	124	126	2	1.86
								151	153	2	1.36
								47	61	14	1.25
HOBRC0014	RC	426,421	6,701,648	343	144	-60	90	68	76	8	1.27
								82	84	2	4.05
								93	95	2	2.36
HOBRC0015	RC	425,858	6,701,100	342	150	-60	88	121	123	2	2.09
HOBICOOLS	NC NC	423,636	6,701,100	342	130	-00	00	131	140	9	1.70
NHAC006	AC	425,154	6,703,496	344	70	-90	0	56	60	4	6.58
NHAC009	AC	425,154	6,703,405	344	47	-90	0	40	44	4	1.11
NHD001	DD	426,146	6,701,709	343	606.4	-55	90	128	132	4	1.04
								50	52	2	2.16
								55	64	9	1.22
								67	73	6	1.19
								87	97	10	4.31
								102	110	8	2.02
NHD002	DD	426,499	6,701,702	344	261.4	-60	271	120	122	2	1.66
								131	135	4	16.47
								148	152	4	1.10
								155	158	3	2.08
								163	165	2	2.58
NHD003	DD	426,099	6,701,902	343	513.5	-55	91	88	96	8	1.75
NHD005	DD	426,302	6,701,607	343	606.5	-60	39	178	183	5	1.24
NHRC001	RC	426,620	6,701,705	347	288	-55	271	247	249	2	3.67
	-	-,-	., . ,					41	44	3	1.57
NHRC002	RC	426,277	6,701,708	345	234	-55	91	99	102	3	2.43
		120,277	0,702,700	3.3	20.	33	32	216	221	5	2.38
								109	114	5	2.31
NHRC003	RC	426,149	6,701,710	345	174	-55	91	165	169	4	1.83
NHRC004	RC	426,377	6,701,705	346	200	-55	271	54	56	2	1.54
NHRC007	RC	426,402	6,701,699	346	150	-55	91	82	99	17	2.07
NHRC007	RC	426,302	6,701,699	346	150	-55	91	70	73	3	2.21
NHRC015 NHRC019	RC RC	426,302	6,701,499		139	-55	91	57	61	4	
NHRC019	RC	426,200	6,701,299	345 346	151	-55	91	57	60	3	2.64 1.20
INFINCUZO	NC.	420,301	0,701,902	340	131	-33	21		61		
NHBCO20	DC.	126 106	6 701 900	246	150		01	55 67		6	2.04
NHRC030	RC	426,406	6,701,899	346	150	-55	91	67	69	2	2.27
NUID CO24	B.C	426 400	6 704 006	246	450		0.1	138	141	3	2.34
NHRC031	RC	426,198	6,701,896	346	150	-55	91	59	70	11	2.70
NHRC035	RC	425,901	6,701,105	344	120	-55	91	73	78	5	1.47
NHRC036	RC	426,448	6,701,805	347	150	-55	91	67	72	5	1.07
NHRC037	RC	426,250	6,701,804	346	150	-55	91	53	66	13	2.03
NHRC038	RC	426,150	6,701,795	345	150	-55	91	131	134	3	1.59





Hole	Hole Type	East (m)	North (m)	Elevation (m)	Total Depth (m)	Dip (°)	Azimuth (°)	From (m)	To (m)	Interval (m)	Au (ppm)
								39	44	5	2.06
								50	53	3	2.01
NHRC044	RC	426,346	6,701,801	346	150	-55	91	60	77	17	2.16
								96	98	2	1.66
								123	127	4	2.73
NHRC045	RC	424,951	6,703,402	342	150	-55	91	48	52	4	2.41
NYAC175	AC	425,100	6,703,410	344	48	-90	0	20	22	2	2.03
NYAC211	AC	426,442	6,701,897	346	50	-90	0	44	50 EOH	6	1.83
NYAC276	AC	426,104	6,701,311	345	53	-90	0	48	50	2	1.39
NYAC279	AC	425,799	6,701,708	346	49	-90	0	42	44	2	1.22
NYAC285	AC	426,394	6,701,706	346	52	-90	0	46	51	5	2.35
NYAC286	AC	426,499	6,701,700	346	53	-90	0	40	42	2	2.25
NYAC362	AC	426,300	6,701,801	346	57	-90	0	45	47	2	5.10
NYAC363	AC	426,395	6,701,823	347	53	-90	0	47	53 EOH	6	1.80
NYAC366	AC	426,255	6,701,692	344	52	-90	0	47	52 EOH	5	1.76
				2.45				42	47	5	1.02
NYAC368	AC	426,449	6,701,695	346	55	-90	0	50	52	2	1.47
NYAC369	AC	426,551	6,701,698	347	52	-90	0	40	44	4	5.14
NYAC377	AC	426,400	6,701,606	346	53	-90	0	44	50	6	1.02
NYAC392	AC	426,253	6,701,324	345	60	-90	0	47	50	3	2.25
NYRB434	RAB	427,699	6,698,798	347	39	-90	0	32	36	4	1.85
QDD002	DD	421,834	6,703,573	337	100	-60	0	3	8	5	1.36
QDRC002	RC	421,796	6,703,611	337	108	-61	90	28	30	2	1.16
QRC005	RC	421,837	6,703,832	341	100	-60	270	16	18	2	1.35
QRC030	RC	420,628	6,702,811	346	50	-60	0	33	35	2	3.90
								11	24	13	1.24
QRC034	RC	421,818	6,703,672	341	100	-60	0	29	31	2	1.31
								60	66	6	2.13
	RC	426,400	6,701,800	347	192	-55	91	80	84	4	1.92
RYRC001								91	93	2	1.76
5002								99	105	6	1.69
								111	114	3	1.46
								39	53	14	2.50
RYRC002	RC	426,298	6,701,797	346	198	-55	91	61	64	3	1.13
		,	' '	-				146	154	8	1.50
								158	160	2	1.17
								184	186	2	1.25
RYRC003	RC	426,200	6,701,800	346	180	-55	91	191	193	2	2.06
			, ,					175	177	2	1.66
RYRC004	RC	426,454	6,701,700	346	180	-55	91	61	65	4	2.07
								54	64	10	2.47
RYRC005	RC	426,346	6,701,704	346	186	-55	91	134	136	2	1.51
								166	179	13	3.01
		100.105						62	73	11	2.05
RYRC008	RC	426,402	6,701,751	346	144	-62	91	85	92	7	1.13
								53	57	4	1.35
	RC	426,354	6,701,748	346	180	-61	91	97	99	2	3.12
RYRC009								135	138	3	1.96
								149	152	3	1.55
	1	1						171	173	2	1.78

Table 1 – Representative Gold Drillhole Intersections





Appendix 2 – JORC Table

JORC Code, 2012 Edition – Table 1 report

Section 1 Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	 M3 Mining M3 Mining has not undertaken any exploration activities on the tenements disclosed in the body of the announcement Historical Drilling Previous operators have sampled using rotary air blast (RAB), aircore (AC), RC, and diamond (DD) drilling. Drilling has been completed over a number of programs and varied spacings of holes and drill lines. Sampling is assumed to have been via conventional industry standards, i.e. spear sampling for RAB, 1/12 riffle splitting for RC and half core for DD. Measures taken by the previous operators to ensure sample representivity are unknown. Samples were collected at various intervals ranging between 0.1 m and 5.0 m, although majority of the samples were taken on 1m intervals. Assaying was conducted by recognised assay laboratories, although information about assay procedures have not been provided by the previous operators. Only RC and DD holes have been downhole surveyed. The Competent Person is satisfied that the aspects of the determination of mineralisation that are Material to the Public Report are appropriately assessed, and the sampling techniques are appropriate to the mineralisation under investigation.
Drilling techniques	 M3 Mining M3 Mining has not undertaken any exploration activities on the tenements disclosed in the body of the announcement Historical Drilling Over the history of the tenements there have been RAB holes, AC holes, RC holes, and DD holes The Competent Person is satisfied that drilling techniques employed are appropriate to the mineralisation under investigation.
Drill sample recovery	 M3 Mining M3 Mining has not undertaken any exploration activities on the tenements disclosed in the body of the announcement Historical Drilling Sample recoveries during the historical drilling process are unknown. Measures taken by previous explorers to maximise sample recovery and ensure representivity are not recorded in historical reports. It is assumed that industry standard measures applicable at the time of drilling were implemented. No sample bias has been observed. The Competent Person is satisfied that the drill sample recoveries have been adequately assessed and are appropriate to the mineralisation under investigation.
Logging	 M3 Mining M3 Mining has not undertaken any exploration activities on the tenements disclosed in the body of the announcement Historical Drilling Drill chip samples have been geologically logged by previous operators. Geological data is currently limited to lithology only. Historical logging was primarily qualitative. All drillholes are believed to have been logged in full by previous explorers. The Competent Person is satisfied that the logging detail and quality is appropriate to the mineralisation under investigation.
Sub-sampling techniques and sample preparation	 M3 Mining M3 Mining has not undertaken any exploration activities on the tenements disclosed in the body of the announcement Historical Drilling RC samples were collected at the rig using riffle splitters. No information is available on sample moisture. The sample preparation technique used by previous explorers is unknown but is assumed to have followed appropriate industry standard techniques at the time of analysis. Detailed QAQC procedures are unknown for previous explorers but are assumed to have been appropriate to maximise representivity of samples collected. Measures taken historically to ensure that the sampling is representative of the in-situ material collected is poorly documented by previous explorers. Sample sizes are not documented by previous explorers but are assumed appropriate for the rock type and style of mineralisation. The Competent Person is satisfied that the subsampling, sample preparation and quality control measures are appropriate to the mineralisation under investigation.





Criteria	Commentary
Quality of assay data and laboratory tests	 M3 Mining M3 Mining has not undertaken any exploration activities on the tenements disclosed in the body of the announcement Historical Drilling Information about assay laboratories has been reviewed. The laboratory procedure and assaying are assumed to have been appropriate. Historical Information about the nature of QAQC procedures is limited in reports by previous explorers The Competent Person is satisfied that the quality of assay data and laboratory tests are appropriate to the mineralisation under investigation.
Verification of sampling and assaying	 M3 Mining M3 Mining has not undertaken any exploration activities on the tenements disclosed in the body of the announcement Historical Drilling No twin hole drilling is known to have been undertaken on the licence area or other prospects by previous explorers. Depending on the age of the drilling, previous operators have collected data either on paper form or electronically. No historical database is available. No adjustments or calibrations are known to have been made to any assay data collected by previous explorers and compiled by the Company. The Competent Person is satisfied that the verification sampling and assaying have been completed adequately and are appropriate to the mineralisation under investigation.
Location of data points	 M3 Mining M3 Mining has not undertaken any exploration activities on the tenements disclosed in the body of the announcement Historical Drilling The location of most drill collars has been recorded using a handheld GPS unit of an unknown accuracy. It is estimated an accuracy of ±5 m to 10 m exists in the historical data and is dependent on the age of the survey and GPS tool used. Only the RC and DD holes are known to have been downhole surveyed. All geographic data is reported using the grid system MGA94 Zone 51S.
Data spacing and distribution	 M3 Mining M3 Mining has not undertaken any exploration activities on the tenements disclosed in the body of the announcement Historical Drilling Previous drilling has been conducted on various drill spacings. Reconnaissance first-pass drilling was undertaken on 400m spaced drill lines with infill over prospective zones to 100 m line spacing. The data spacing, distribution and geological understanding of mineralisation controls is not currently sufficient for the estimation of Mineral Resources. Previous explorers have reported drill sample composite lengths including 2m and 4m The Competent Person is satisfied that the location accuracy of data points and data spacing is adequate, and these and sample compositing are appropriate to the mineralisation under investigation.
Orientation of data in relation to geological structure	 M3 Mining M3 Mining has not undertaken any exploration activities on the tenements disclosed in the body of the announcement Historical Drilling No orientation-based sampling bias has been identified in the historical data at this point for drilling during reconnaissance stages on the project. The Competent Person is satisfied that the orientation of data in relation to geological structures has been adequately considered and are appropriate to the mineralisation under investigation.
Sample security	M3 Mining M3 Mining has not undertaken any exploration activities on the tenements disclosed in the body of the announcement Historical Drilling No information on sample security has been identified The Competent Person is satisfied that sample security has been adequately considered and is appropriate.
Audits or reviews	M3 Mining M3 Mining has not undertaken any exploration activities on the tenements disclosed in the body of the announcement Historical Drilling A review of previous sampling techniques and methodology indicate it has been conducted to industry standards applicable at the time of drilling. The Competent Person is satisfied that consideration of historical sampling procedures is adequate and appropriate to the mineralisation under investigation.





Section 2 Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	 The Edjudina Project consists of 7 granted tenements: 5 exploration licenses and 2 prospecting licenses. It also consists of 11 tenement 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	 Several generations of drilling and exploration has been completed within the Edjudina Project, including geochemical surveys, air core drilling and RC drilling occurring within the tenement packages. 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 Eastern Goldfields shear hosted, structurally control mineralisation style. Given the tenements are either along strike, or along interpreted similar splays, of the highly structurally controlled Yilgangi Goldfield, mineralisation within the tenements is likely to be highly structurally controlled requiring phased exploration methods which are targeted with the results analysed in detail between each phase.
Drill hole Information	 The data supplied indicates mineralisation within the tenements is potentially in line with the commonly observed Eastern Goldfields shear hosted, structurally control mineralisation style. Given the tenements are either along strike, or along interpreted similar splays, of the highly structurally controlled Yilgangi Goldfield, mineralisation within the tenements is likely to be highly structurally controlled requiring phased exploration methods which are targeted with the results analysed in detail between each phase.
Data aggregation methods	 No high-grade cuts were applied, low grade cut of 0.5 g/t Au was used for reported highlight intersections Appendix 1 details all historic drillholes 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, as noted in the relevant sections
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 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 drilling and field work is planned.

