MMG LIMITED

五礦資源有限公司

(Incorporated in Hong Kong with limited liability)

(STOCK CODE: 1208)

MINERAL RESOURCES AND ORE RESERVES STATEMENT AS AT 30 JUNE 2022

This announcement is made by MMG Limited (Company or MMG and, together with its subsidiaries, the Group) pursuant to rule 13.09(2) of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (Listing Rules) and the Inside Information Provisions (as defined in the Listing Rules) under Part XIVA of the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong).

The Board of Directors of the Company (Board) is pleased to report the Group's updated Mineral Resources and Ore Reserves Statement as at 30 June 2022 (Mineral Resources and Ore Reserves Statement).

The key changes to Mineral Resources and Ore Reserves Statement as at 30 June 2022 are:

- The Group's Mineral Resources (contained metal) have increased for copper (5%), cobalt (11%), molybdenum (2%) and gold (2%). Estimated Mineral Resource decreases (contained metal) have occurred in zinc (3%), lead (10%) and silver (1%).

- The Group's Ore Reserves (contained metal) have decreased for copper (1%), zinc (8%), lead (19%), silver (5%), gold (5%) and molybdenum (13%). Cobalt metal has decreased slightly by 0.2%.

For copper metal, an increase in metal price assumptions have resulted in a net positive variance in Resources. At Las Bambas continuous improvement to the geological model through drilling and orebody knowledge study have also contributed to increased Resources. Otherwise, the main reasons for changes are depletion at all sites. Other drivers have not resulted in material changes to either Mineral Resources or Ore Reserves. Continued depletion at Sulfobamba by illegal mining is the only negative variance. Copper metal Mineral Resources additions have replaced depletion by approximately 150% in 2022, driven primarily by Las Bambas.

For zinc metal, the main reasons for the changes are depletion at the two Australian sites and narrower than expected zones from some Dugald River drilling results combined with changes to modelling practices at the site.

MMG Limited

MINERAL RESOURCES AND ORE RESERVES STATEMENT

30 June 2022

All data reported here are on a 100% asset basis, with MMG's attributable interest shown against each asset within the Mineral Resources and Ore Reserves tables (pages 4 to 9).

MINERAL RESOURCES AND ORE RESERVES STATEMENT

A copy of the executive summary of the Mineral Resources and Ore Reserves Statement is annexed to this announcement.

The information referred to in this announcement has been extracted from the report titled Mineral Resources and Ore Reserves Statement as at 30 June 2022 published on 25 October 2022 and is available to view on www.mmg.com. The Company confirms that it is not aware of any new information or data that materially affects the information included in the Mineral Resources and Ore Reserves Statement and, in the case of estimates of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the Mineral Resources and Ore Reserves Statement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the Mineral Resources and Ore Reserves Statement.

By order of the Board
MMG Limited
Li Liangang
Interim CEO and Executive Director

Hong Kong, 25 October 2022

As at the date of this announcement, the Board comprises seven directors, of which one is an executive director, namely Mr Li Liangang; three are non-executive directors, namely Mr Jiao Jian (Chairman), Mr Zhang Shuqiang and Mr Xu Jiqing; and three are independent non-executive directors, namely Dr Peter William Cassidy, Mr Leung Cheuk Yan and Mr Chan Ka Keung, Peter.

MMG Limited

MINERAL RESOURCES AND ORE RESERVES STATEMENT

30 June 2022

EXECUTIVE SUMMARY

Mineral Resources and Ore Reserves for MMG have been estimated as at 30 June 2022 and are reported in accordance with the guidelines in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (2012 JORC Code) and Chapter 18 of the Listing Rules. Mineral Resources and Ore Reserves tables are provided on pages 4 to 9, which include the 30 June 2022 and 30 June 2021 estimates for comparison. The Measured and Indicated Mineral Resources are inclusive of those Mineral Resources that have been converted to Ore Reserves. All supporting data are provided within the Technical Appendix, available on the MMG website.

Mineral Resources and Ore Reserves information in this statement have been compiled by Competent Persons (as defined by the 2012 JORC Code). Each Competent Person consents to the inclusion of the information in this report, that they have provided in the form and context in which it appears. Competent Persons are listed on page 10.

MMG has established processes and structures for the governance of Mineral Resources and Ore Reserves estimation and reporting. MMG has a Mineral Resources and Ore Reserves Committee that regularly convenes to assist the MMG Governance and Nomination Committee and the Board of Directors with respect to the reporting practices of the Company in relation to Mineral Resources and Ore Reserves, and the quality and integrity of these reports of the Group.

Key changes to the Mineral Resources (contained metal) since the 30 June 2021 estimate relate to depletion[1] at all sites together with increased costs, changes in metal price assumptions, increases to cut-off grades and updates to the models at all sites. Geological models are continually improved and updated with new drilling information and result in both increases and decreases. Relatively small increases have occurred at Ferrobamba (Las Bambas) while all other copper deposits have increased by less than 1% compared to the global change. There are no material changes at the Kinsevere mine whereas copper and cobalt have increased in the regional DRC satellite copper deposits resulting from new drilling at Sokoroshe 2 and an increase of the copper price assumption. Zinc metal increases are more than twice the depleted metal at Rosebery while at Dugald River, depletion (43%) and model changes (57%), partially driven by narrower intersections in some areas, explains the negative zinc variance at the site. The lead and silver negative variances are partially explained by depletion of those metals, 18% and 27% respectively, with the majority of the negative variance due to adverse model changes.

Key changes to the Ore Reserves (contained metal) since the 30 June 2021 estimate are mostly related to depletion[1]. An increase in contained copper metal at Las Bambas in the Ferrobamba deposit are due to improved grades and changes resulting from the pit design. Other pits show no material change. Milled depletion explains 90% of the negative zinc metal variance at Dugald River, but only 30% and 50% of the lead and silver negative variances respectively.

Pages 11 and 12 provide further discussion of the Mineral Resources and Ore Reserves changes.

On 13 October 2022, MMG made a voluntary announcement regarding an invasion of both Sokoroshe 2 and Nambulwa project sites. Kinsevere Operation intends to mine both of these deposits as part of its Expansion Project and its future operations. MMG maintains that it holds current and valid mining lease agreements with Gécamines over these deposits and has announced it has commenced international arbitration before the International Chamber of Commerce on 21 October 2022.

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[1] Depletion in this report refers to material processed by the mill and depleted from the Mineral Resources and Ore Reserves through mining and processing.

MMG Limited

MINERAL RESOURCES AND ORE RESERVES STATEMENT

30 June 2022

MINERAL RESOURCES[1]

All data reported here is on a 100% asset basis, with MMG's attributable interest shown against each asset within brackets.

	2022								2021							
Deposit	**Tonnes (Mt)**	**Cu (%)**	**Zn (%)**	**Pb (%)**	**Ag (g/t)**	**Au (g/t)**	**Mo (ppm)**	**Co (%)**	**Tonnes (Mt)**	**Cu (%)**	**Zn (%)**	**Pb (%)**	**Ag (g/t)**	**Au (g/t)**	**Mo (ppm)**	**Co (%)**
Las Bambas (62.5%)																
Ferrobamba Oxide Copper																
Indicated	0.03	1.7							0.4	1.4						
Inferred									0.01	1.1						
Total	**0.03**	**1.7**							**0.4**	**1.4**						
Ferrobamba Primary Copper																
Measured	470	0.56			2.3	0.04	210		410	0.59			2.6	0.05	220	
Indicated	270	0.70			3.3	0.06	180		280	0.70			3.2	0.06	200	
Inferred	110	0.84			4.2	0.08	170		72	0.92			3.9	0.08	140	
Total	**850**	**0.64**			**2.9**	**0.05**	**190**		**770**	**0.66**			**3.0**	**0.06**	**210**	
Ferrobamba Total	**850**								**770**							
Chalcobamba Oxide Copper																
Indicated	6.8	1.4							6.5	1.5						
Inferred	0.06	1.5							0.5	1.7						
Total	**6.9**	**1.4**							**7.0**	**1.5**						
Chalcobamba Primary Copper																
Measured	140	0.54			1.7	0.02	140		120	0.52			1.6	0.02	150	
Indicated	180	0.64			2.5	0.03	110		170	0.70			2.7	0.03	120	
Inferred	29	0.56			2.4	0.03	130		27	0.60			2.5	0.03	140	
Total	**340**	**0.60**			**2.1**	**0.03**	**120**		**320**	**0.63**			**2.3**	**0.03**	**130**	
Chalcobamba Total	**347**								**327**							
Sulfobamba Primary Copper																
Indicated	84	0.67			4.7	0.02	170		80	0.68			4.8	0.02	170	
Inferred	98	0.58			6.5	0.02	120		96	0.58			6.5	0.02	120	
Total	**180**	**0.62**			**5.7**	**0.02**	**140**		**180**	**0.63**			**5.7**	**0.02**	**140**	
Sulfobamba Total	**180**	**0.62**			**5.7**	**0.02**	**140**		**180**	**0.63**			**5.7**	**0.02**	**140**	
Oxide Copper Stockpile																
Indicated	14	1.1							13	1.1						
Total	**14**	**1.1**							**13**	**1.1**						
Sulphide Stockpile																
Measured	30	0.38			2.2		130		26	0.39			1.8		140	
Total	**30**	**0.38**			**2.2**		**130**		**26**	**0.39**			**1.8**		**140**	
Las Bambas Total	**1,400**								**1,300**							

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[1] S.I. units used for metals of value; Cu=copper, Zn=zinc, Pb=lead, Ag=silver, Au=gold, Mo=molybdenum, Co=cobalt.

MINERAL RESOURCES[1]

	2022								2021							
Deposit	**Tonnes (Mt)**	**Cu (%)**	**Zn (%)**	**Pb (%)**	**Ag (g/t)**	**Au (g/t)**	**Mo (ppm)**	**Co (%)**	**Tonnes (Mt)**	**Cu (%)**	**Zn (%)**	**Pb (%)**	**Ag (g/t)**	**Au (g/t)**	**Mo (ppm)**	**Co (%)**
Kinsevere (100%)																
Oxide Copper																
Measured	2.6	2.9						0.08	1.2	3.2						0.11
Indicated	4.4	2.6						0.12	5.5	2.7						0.09
Inferred	2.0	2.0						0.09	2.2	2.1						0.07
Total	**9.0**	**2.6**						**0.10**	**8.9**	**2.7**						**0.09**
Transition Mixed Copper Ore																
Measured	1.0	2.2						0.16	0.8	2.0						0.12
Indicated	2.5	2.0						0.12	2.2	2.1						0.08
Inferred	1.3	1.7						0.08	1.1	1.6						0.12
Total	**4.8**	**1.9**						**0.12**	**4.1**	**1.9**						**0.25**
Primary Copper																
Measured	2.2	2.5						0.23	1.5	2.6						0.25
Indicated	18	2.2						0.10	19	2.3						0.10
Inferred	10	1.6						0.07	9.2	1.7						0.08
Total	**31**	**2.1**						**0.10**	**29**	**2.1**						**0.10**
Oxide-TMO Cobalt																
Measured									0.02	0.46						0.31
Indicated	0.70	0.21						0.32	0.16	0.35						0.33
Inferred	0.73	0.16						0.33	0.99	0.23						0.32
Total	**1.4**	**0.18**						**0.32**	**1.2**	**0.3**						**0.32**
Primary Cobalt																
Measured									0.01	0.54						0.24
Indicated	0.17	0.31						0.20	0.15	0.57						0.20
Inferred	0.24	0.26						0.22	0.17	0.33						0.25
Total	**0.41**	**0.28**						**0.21**	**0.34**	**0.44**						**0.22**
Stockpiles																
Measured																
Indicated	14	1.5							16	1.6						
Total	**14**	**1.5**							**16**	**1.6**						
Kinsevere Total	**61**	**1.9**							**59**	**2.0**						

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[1] S.I. units used for metals of value; Cu=copper, Zn=zinc, Pb=lead, Ag=silver, Au=gold, Mo=molybdenum, Co=cobalt.

MINERAL RESOURCES[1]

	2022								2021							
Deposit	**Tonnes (Mt)**	**Cu (%)**	**Zn (%)**	**Pb (%)**	**Ag (g/t)**	**Au (g/t)**	**Mo (ppm)**	**Co (%)**	**Tonnes (Mt)**	**Cu (%)**	**Zn (%)**	**Pb (%)**	**Ag (g/t)**	**Au (g/t)**	**Mo (ppm)**	**Co (%)**
Sokoroshe 2 (100%)																
Oxide Copper																
Measured																
Indicated	2.8	2.1						0.39	1.7	2.4						0.35
Inferred	0.16	1.1						0.10	0.02	3.4						0.07
Total	**2.9**	**2.1**						**0.37**	**1.7**	**2.4**						**0.34**
Transition Mixed Copper Ore																
Measured																
Indicated	0.07	1.6						0.23	0.1	0.9						1.50
Inferred									0.2	2.5						0.24
Total	**0.07**	**1.6**						**0.23**	**0.3**	**1.8**						**0.75**
Primary Copper																
Measured																
Indicated	0.62	1.50						0.47								
Inferred									0.67	1.7						0.58
Total	**0.62**	**1.5**						**0.47**	**0.67**	**1.7**						**0.58**
Oxide Cobalt																
Measured																
Indicated	0.63	0.24						0.51	0.47	0.41						0.56
Inferred	0.31	0.35						0.31	0.10	0.25						0.34
Total	**0.93**	**0.27**						**0.45**	**0.57**	**0.4**						**0.52**
Primary Cobalt																
Measured																
Indicated	0.047	0.53						0.64	0.012	0.14						0.34
Inferred									0.004	0.36						0.65
Total	**0.047**	**0.53**						**0.64**	**0.016**	**0.20**						**0.42**
Sokoroshe 2 Total	**4.6**	**1.6**						**0.40**	**3.3**	**1.9**						**0.46**
Nambulwa (100%)																
Oxide Copper																
Measured																
Indicated	1.1	2.2						0.11	1.0	2.2						0.11
Inferred	0.10	1.9						0.07	0.09	1.9						0.07
Total	**1.2**	**2.1**						**0.11**	**1.1**	**2.2**						**0.11**
Transition Mixed Copper Ore																
Measured																
Indicated	0.02	3.3						0.18								
Inferred																
Total	**0.02**	**3.3**						**0.18**								
Oxide Cobalt																
Measured																
Indicated	0.17	0.14						0.27	0.17	0.15						0.27
Inferred																
Total	**0.17**	**0.14**						**0.27**	**0.2**	**0.1**						**0.27**
Nambulwa Total	**1.4**	**1.9**						**0.13**	**1.3**	**2.0**						**0.13**

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[1] S.I. units used for metals of value; Cu=copper, Zn=zinc, Pb=lead, Ag=silver, Au=gold, Mo=molybdenum, Co=cobalt.

MINERAL RESOURCES[1]

	2022								2021							
Deposit	**Tonnes (Mt)**	**Cu (%)**	**Zn (%)**	**Pb (%)**	**Ag (g/t)**	**Au (g/t)**	**Mo (ppm)**	**Co (%)**	**Tonnes (Mt)**	**Cu (%)**	**Zn (%)**	**Pb (%)**	**Ag (g/t)**	**Au (g/t)**	**Mo (ppm)**	**Co (%)**
DZ (100%)																
Oxide Copper																
Measured																
Indicated	0.94	1.8						0.13	0.79	2.0						0.13
Inferred	0.04	2.0						0.12	0.04	2.0						0.13
Total	**0.98**	**1.8**						**0.13**	**0.82**	**2.0**						**0.13**
Oxide Cobalt																
Measured																
Indicated	0.33	0.22						0.27	0.35	0.26						0.27
Inferred	0.01	0.14						0.25	0.01	0.14						0.25
Total	**0.33**	**0.22**						**0.27**	**0.35**	**0.26**						**0.27**
DZ Total	**1.3**	**1.4**						**0.16**	**1.2**	**1.5**						**0.17**
Mwepu (100%)																
Oxide Copper																
Measured																
Indicated	0.75	2.5						0.17	0.86	2.4						0.18
Inferred	0.45	2.7						0.29	0.57	2.4						0.28
Total	**1.2**	**2.6**						**0.22**	**1.4**	**2.4**						**0.22**
TMO Copper																
Measured																
Indicated	0.20	1.3						0.18								
Inferred	0.18	1.4						0.22								
Total	**0.38**	**1.3**						**0.20**								
Oxide Cobalt																
Measured																
Indicated	0.04	0.7						0.45	0.10	0.56						0.32
Inferred	0.05	0.7						0.44	0.12	0.61						0.33
Total	**0.09**	**0.7**						**0.45**	**0.22**	**0.59**						**0.33**
Primary Cobalt																
Measured																
Indicated	0.07	0.25						0.31	0.07	0.25						0.31
Inferred	0.20	0.27						0.42	0.20	0.27						0.41
Total	**0.27**	**0.26**						**0.39**	**0.27**	**0.26**						**0.39**
Mwepu Total	**1.9**	**1.9**						**0.29**	**1.9**	**1.9**						**0.25**

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[1] S.I. units used for metals of value; Cu=copper, Zn=zinc, Pb=lead, Ag=silver, Au=gold, Mo=molybdenum, Co=cobalt.

MINERAL RESOURCES[1]

	2022								2021							
Deposit	**Tonnes (Mt)**	**Cu (%)**	**Zn (%)**	**Pb (%)**	**Ag (g/t)**	**Au (g/t)**	**Mo (ppm)**	**Co (%)**	**Tonnes (Mt)**	**Cu (%)**	**Zn (%)**	**Pb (%)**	**Ag (g/t)**	**Au (g/t)**	**Mo (ppm)**	**Co (%)**
Dugald River (100%)																
Primary Zinc																
Measured	12		13.5	2.2	71				13		13.1	2.4	80			
Indicated	15		12.0	0.9	16				17		11.6	1.4	21			
Inferred	33		11.3	0.8	8.1				36		11.2	0.8	9			
Total	**61**		**11.9**	**1.1**	**23**				**66**		**11.7**	**1.3**	**26**			
Primary Copper																
Inferred	4.5	1.5				0.1			4.5	1.5				0.1		
Total	**4.5**	**1.5**				**0.1**			**4.5**	**1.5**				**0.1**		
Dugald River Total	**65**								**70**							
Rosebery (100%)																
Rosebery																
Measured	7.3	0.20	7.4	2.7	118	1.2			6.5	0.22	7.7	3.0	135	1.4		
Indicated	4.6	0.18	6.9	1.9	75	1.1			3.1	0.17	6.5	2.3	117	1.2		
Inferred	7.9	0.19	7.0	2.1	77	1.1			7.1	0.21	8.6	2.5	91	1.2		
Total	**20**	**0.19**	**7.1**	**2.3**	**92**	**1.1**			**17**	**0.21**	**7.9**	**2.6**	**113**	**1.3**		
Rosebery Total	**20**								**17**							
High Lake (100%)																
Measured																
Indicated	7.9	3.0	3.5	0.3	83	1.3			7.9	3.0	3.5	0.3	83	1.3		
Inferred	6.0	1.8	4.3	0.4	84	1.3			6.0	1.8	4.3	0.4	84	1.3		
Total	**14**	**2.5**	**3.8**	**0.4**	**84**	**1.3**			**14**	**2.5**	**3.8**	**0.4**	**84**	**1.3**		
Izok Lake (100%)																
Measured																
Indicated	13	2.4	13.3	1.4	73	0.18			13	2.4	13.3	1.4	73	0.18		
Inferred	1.2	1.5	10.5	1.3	73	0.21			1.2	1.5	10.5	1.3	73	0.21		
Total	**15**	**2.3**	**13.1**	**1.4**	**73**	**0.18**			**15**	**2.3**	**13.1**	**1.4**	**73**	**0.18**		

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[1] S.I. units used for metals of value; Cu=copper, Zn=zinc, Pb=lead, Ag=silver, Au=gold, Mo=molybdenum, Co=cobalt.

ORE RESERVES[1]

All data reported here is on a 100% asset basis, with MMG's attributable interest shown against each asset within brackets.

Ore Reserves

	2022								2021							
Deposit	**Tonnes (Mt)**	**Cu (%)**	**Zn (%)**	**Pb (%)**	**Ag (g/t)**	**Au (g/t)**	**Mo (ppm)**	**Co (%)**	**Tonnes (Mt)**	**Cu (%)**	**Zn (%)**	**Pb (%)**	**Ag (g/t)**	**Au (g/t)**	**Mo (ppm)**	**Co (%)**
Las Bambas (62.5%)																
Ferrobamba Primary Copper																
Proved	340	0.65			2.9	0.05	200		360	0.61			2.7	0.05	220	
Probable	130	0.91			4.6	0.08	180		160	0.77			3.5	0.07	190	
Total	**470**	**0.72**			**3.4**	**0.06**	**200**		**520**	**0.66**			**2.9**	**0.06**	**210**	
Chalcobamba Primary Copper																
Proved	100	0.65			2.1	0.03	130		83	0.60			1.9	0.02	140	
Probable	130	0.71			2.7	0.03	110		140	0.74			2.7	0.03	120	
Total	**230**	**0.68**			**2.4**	**0.03**	**120**		**220**	**0.69**			**2.4**	**0.03**	**130**	
Sulfobamba Primary Copper																
Proved																
Probable	54	0.80			5.9	0.03	160		56	0.79			5.8	0.03	160	
Total	**54**	**0.80**			**5.9**	**0.03**	**160**		**56**	**0.79**			**5.8**	**0.03**	**160**	
Primary Copper Stockpiles																
Proved	30	0.38			2.2		130		26	0.39			1.8		140	
Total	**30**	**0.38**			**2.2**		**130**		**26**	**0.39**			**1.8**		**180**	
Las Bambas Total	**780**	**0.70**			**3.2**		**170**		**820**	**0.67**			**3.0**		**180**	
Kinsevere (100%)																
Oxide/TMO Copper and Cobalt																
Proved	3.0	2.5						0.12	1.0	3.4						0.15
Probable	5.7	2.2						0.12	3.8	2.9						0.11
Total	**8.6**	**2.3**						**0.12**	**4.8**	**3.0**						**0.12**
Primary Copper and Cobalt																
Proved	1.9	2.3						0.21	1.8	2.5						0.24
Probable	16	2.2						0.10	18	2.4						0.11
Total	**18**	**2.2**						**0.11**	**19**	**2.4**						**0.12**
Stockpiles																
Proved																
Probable	14	1.5							16	1.6						
Total	**14**	**1.5**							**16**	**1.6**						
Kinsevere Total	**40**	**2.0**							**40**	**2.1**						
Dugald River (100%)																
Primary Zinc																
Proved	12		10.9	1.9	62				12		11.0	2.1	70			
Probable	10		10.1	0.9	14				12		10.1	1.3	18			
Total	22		10.5	1.4	39				24		10.6	1.7	44			
Dugald River Total	**22**		**10.5**	**1.4**	**39**				**24**		**10.6**	**1.7**	**44**			
Rosebery (100%)																
Proved	4.8	0.19	6.7	2.7	120	1.2			5.3	0.19	6.4	2.6	120	1.3		
Probable	0.77	0.20	6.1	2.1	79	1.3			0.84	0.18	5.5	2.0	110	1.1		
Total	**5.5**	**0.19**	**6.6**	**2.6**	**110**	**1.2**			**6.1**	**0.19**	**6.3**	**2.5**	**120**	**1.2**		
Rosebery Total	**5.5**	**0.19**	**6.6**	**2.6**	**110**	**1.2**			**6.1**	**0.19**	**6.3**	**2.5**	**120**	**1.2**		

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[1] S.I. units used for metals of value; Cu=copper, Zn=zinc, Pb=lead, Ag=silver, Au=gold, Mo=molybdenum.

COMPETENT PERSONS

Table 1: Competent Persons for Mineral Resources, Ore Reserves and Corporate

Deposit	**Accountability**	**Competent Person**	**Professional Membership**	**Employer**
MMG Mineral Resources and Ore Reserves Committee	Mineral Resources	Rex Berthelsen[1]	HonFAusIMM(CP)	MMG
MMG Mineral Resources and Ore Reserves Committee	Ore Reserves	Cornel Parshotam[1]	MAusIMM	MMG
MMG Mineral Resources and Ore Reserves Committee	Metallurgy: Mineral Resources / Ore Reserves	Amy Lamb[1]	MAusIMM(CP)	MMG
Las Bambas	Mineral Resources	Hugo Rios[1]	MAusIMM(CP)	MMG
Las Bambas	Ore Reserves	Jorge Valverde[1]	MAusIMM(CP)	MMG
Kinsevere	Mineral Resources	Jeremy Witley[2]	Pr.Sci.Nat.	The MSA Group (Pty) Ltd
Kinsevere	Ore Reserves	Dean Basile	MAusIMM(CP)	Mining One Pty Ltd
Rosebery	Mineral Resources	Maree Angus	MAusIMM(CP)	AMC Consultants Pty Ltd
Rosebery	Ore Reserves	Andrew Robertson	FAusIMM	Mining Plus Pty Ltd
Dugald River	Mineral Resources	Andrew Fowler	MAusIMM(CP)	Mining Plus Pty Ltd
Dugald River	Ore Reserves	Philip Bremner	FAusIMM	Oreteck Pty Ltd
High Lake, Izok Lake	Mineral Resources	Allan Armitage[3]	MAPEG (P.Geo)	Formerly MMG

The information in this report that relates to Mineral Resources and Ore Reserves is based on information compiled by the listed Competent Persons, who are Members or Fellows of the Australasian Institute of Mining and Metallurgy (AusIMM), the Australian Institute of Geoscientists (AIG) or a Recognised Professional Organisation (RPO) and have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Each of the Competent Persons has given consent to the inclusion in the report of the matters based on their information in the form and context in which it appears.

---

[1] Participants in the MMG Long-Term Incentive Plans which may include Mineral Resources and Ore Reserves growth as a performance condition

[2] South African Council for Natural Scientific Professions, Professional Natural Scientist

[3] Member of the Association of Professional Engineers and Geoscientists of British Columbia

SUMMARY OF SIGNIFICANT CHANGES

MINERAL RESOURCES

Mineral Resources as at 30 June 2022 have changed, since the 30 June 2021 estimate, for several reasons with the most significant changes outlined in this section.

Mineral Resources (contained metal) have increased for copper (5%), cobalt (11%), molybdenum (2%) and gold (2%). Zinc (-3%), lead (-10%) and silver (-1%) have decreased from 2021. Variations to Mineral Resources (contained metal) on an individual site basis are discussed below:

Increases:

The increases in Mineral Resources (contained metal) are due to:

- metal prices, specifically copper, has increased the overall contained copper metal and contributed by association to an increase in cobalt in the Kinsevere and satellite DRC deposits; and
- improvements in orebody knowledge specifically at Las Bambas and Rosebery. At Rosebery, continued drilling success in the middle and lower mine areas, specifically Z lens, combined with a reduction in cut-off grade, has further delineated a combined 3.1Mt of additional resource as extensions to the deposit. An increase in metal of 10% copper, 7% zinc, 3% lead and 6% gold have resulted. At Las Bambas, copper metal has increased by 6%, silver by 7% and molybdenum by 2%.

Decreases:

The decreases in Mineral Resources (contained metal) are due to:

- depletion at all producing operations;
- drilling at Dugald River has intersected some narrower zones than expected and has partially contributing to the -6% zinc metal reduction. Changes to the modelling procedures aimed at addressing a negative reconciliation in by-products have contributed to the majority of the lead (-20%) and silver (-19%) variances. This largely impacts the Indicated category; and
- removal of a further 10kt Cu from Sulfobamba deposit at Las Bambas due to illegal mining over the last 12 months taking the total estimated depletion due to illegal mining to 50kt Cu.

ORE RESERVES

Ore Reserves as at 30 June (contained metal) have decreased for copper (-1%), zinc (-8%), lead (-19%), silver (-5%), gold (-5%), molybdenum (-13%) and cobalt (-0.2%).

Variations to Ore Reserves (contained metal) on an individual site basis are discussed below:

Increases:

There are no increases of metal in the 2022 Ore Reserves.

Decreases:

Decreases in Ore Reserves (metal) as stated above are due to:

- depletion at all producing operations;
- changes in modelling practices at Dugald River have had an adverse impact on lead (-23%) and silver (-18%), specifically in the Probable Ore Reserve category. This impact is not material from a value perspective as lead and silver combined represent less than 10% of the total Metal Zn Equivalent (4.5%);
- the reduction of copper metal (-6%) at Kinsevere, and at Rosebery (-6%) are both due depletion; and
- the reduction of zinc metal (-8%) at Dugald River and (-4%) at Rosebery are due to depletion net of minor model updates.

KEY ASSUMPTIONS

PRICES AND EXCHANGE RATES

The following price and foreign exchange assumptions, set according to the relevant MMG Standard as at February 2022, have been applied to all Mineral Resources and Ore Reserves estimates. Price assumptions for all metals have changed from the 2021 Mineral Resources and Ore Reserves statement.

Table 2: 2022 Price (real) and foreign exchange assumptions

	Ore Reserves	Mineral Resources
Cu (US$/lb)	3.38	4.04
Zn (US$/lb)	1.17	1.39
Pb (US$/lb)	0.89	1.06
Au US$/oz	1,566	1,878
Ag US$/oz	19.60	23.48
Mo (US$/lb)	10.48	12.12
Co (US$/lb)	20.60	30.30
USD:CAD	1.25	As per Ore Reserves
AUD:USD	0.75	
USD:PEN	3.71	

CUT-OFF GRADES

Mineral Resources and Ore Reserves cut-off values are shown in Table 3 and Table 4, respectively.

Table 3: Mineral Resources cut-off grades

Site	Mineralisation	Likely Mining Method[1]	Cut-Off Value	Comments
Las Bambas	Oxide copper	OP	1% Cu[2]	Cut-off is applied as a range that varies for each deposit and mineralised rock type at Las Bambas. *In-situ* copper Mineral Resources constrained within US$4.04/lb Cu and US$12.12/lb Mo pit shell.
	Primary copper Ferrobamba		0.16% Cu[2] (average)	
	Primary copper Chalcobamba		0.18% Cu[2] (average)	
	Primary copper Sulfobamba		0.20% Cu[2] (average)	
Kinsevere	Oxide copper & stockpiles	OP	0.55% CuAS[3]	*In-situ* copper Mineral Resources constrained within a US$4.04/lb Cu and US$30.30/lb Co pit shell.
	Transition mixed ore copper (TMO)	OP	0.6% Cu[2]	
	Primary copper	OP	0.6% Cu[2]	
	Oxide TMO Cobalt	OP	0.2% Co[4]	*In-situ* cobalt Mineral Resources constrained within a US$4.04/lb Cu and US$30.30/lb Co pit shell, but exclusive of copper mineralisation.
	Primary cobalt	OP	0.1% Co[4]	
Sokoroshe 2	Oxide	OP	0.6% CuAS[3]	*In-situ* copper Mineral Resources constrained within a US$4.04/lb Cu and US$30.30/lb Co pit shell.
	TMO Copper	OP	0.8% Cu[2]	
	Primary copper	OP	0.8% Cu[2]	
	Oxide TMO cobalt	OP	0.2% Co[4]	*In-situ* cobalt Mineral Resources constrained within a US$4.04/lb Cu and US$30.30/lb Co pit shell, but exclusive of copper mineralisation above cut off.
	Primary cobalt	OP	0.2% Co[4]	
Nambulwa / DZ	Oxide copper	OP	0.6% CuAS[3]	*In-situ* copper Mineral Resources constrained within a US$4.04/lb Cu and US$30.30/lb Co pit shell.
	TMO copper	OP	0.8% Cu[2]	
	Primary copper	OP	0.8% Cu[2]	
	Oxide TMO cobalt	OP	0.2 Co[4]	*In-situ* cobalt Mineral Resources constrained within a US$4.04/lb Cu and US$30.30/lb Co pit shell, but exclusive of copper mineralisation.
	Primary cobalt	OP	0.2 Cu[4]	
Mwepu	Oxide copper	OP	0.75% CuAS[3]	*In-situ* copper Mineral Resources constrained within a US$4.04/lb Cu and US$30.30/lb Co pit shell.
	TMO copper	OP	1.0% Cu[2]	
	Primary copper	OP	1.0% Cu[2]	
	Oxide TMO cobalt	OP	0.3% Co[4]	*In-situ* cobalt Mineral Resources constrained within a US$4.04/lb Cu and US$30.30/lb Co pit shell, but exclusive of copper mineralisation.
	Primary cobalt	OP	0.2% Co[4]	
Rosebery	Rosebery (Zn, Cu, Pb, Au, Ag)	UG	A$155/t NSR[5]	All areas of the mine are reported using the same NSR cut-off value.
Dugald River	Primary zinc (Zn, Pb, Ag)	UG	A$145/t NSR[5]	All areas of the mine are reported using the same NSR cut-off value.
	Primary copper	UG	1% Cu[2]	All areas of the mine are reported at the same cut-off grade
High Lake	Cu, Zn, Pb, Ag, Au	OP	2.0% CuEq[6]	CuEq[6] = Cu + (Zn×0.30) + (Pb×0.33) + (Au×0.56) + (Ag×0.01): based on Long-Term prices and metal recoveries at Au:75%, Ag:83%, Cu:89%, Pb:81% and Zn:93%.
	Cu, Zn, Pb, Ag, Au	UG	4.0% CuEq[6]	CuEq[6] = Cu + (Zn×0.30) + (Pb×0.33) + (Au×0.56) + (Ag×0.01): based on Long-Term prices and metal

---

[1] OP = Open Pit, UG = Underground
[2] Cu = Total copper
[3] CuAS = Acid Soluble copper
[4] Co = Total Cobalt
[5] NSR = Net Smelter Return
[6] CuEq = Copper Equivalent

Site	**Mineralisation**	**Likely Mining Method**[1]	**Cut-Off Value**	**Comments**
				recoveries at Au:75%, Ag:83%, Cu:89%, Pb:81% and Zn:93%.
Izok Lake	Cu, Zn, Pb, Ag, Au	OP	4.0% ZnEq[1]	ZnEq[1] = Zn + (Cu×3.31) + (Pb×1.09) + (Au×1.87) + (Ag×0.033); prices and metal recoveries as per High Lake.

Table 4 : Ore Reserves cut-off grades

Site	**Mineralisation**	**Mining Method**	**Cut-Off Value**	**Comments**
Las Bambas	Primary copper Ferrobamba	OP	0.20% Cu[2] (average)[3]	Range based on rock type recovery.
	Primary copper Chalcobamba		0.23% Cu[2] (average)[4]	
	Primary copper Sulfobamba		0.25% Cu[2] (average)[5]	
Kinsevere	Copper oxide	OP	0.5% CuAS[6]	Approximate cut-off grades shown in this table for ex-pit material. Variable cut-off grade based on net value script.
		OP	0.5% CuAS[6]	For existing stockpiles reclaim.
Rosebery	(Zn, Cu, Pb, Au, Ag)	UG	A$155/t NSR[7]	
Dugald River	Primary zinc	UG	A$145/t NSR (average)[7]	

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[1] ZnEq = Zinc Equivalent

[2] Cu = Total copper

[3] Range from 0.20 to 0.24% Cu

[4] Range from 0.22 to 0.29% Cu

[5] Range from 0.24 to 0.29% Cu

[6] CuAS = Acid Soluble Copper

[7] NSR = Net Smelter Return

PROCESSING RECOVERIES

Average processing recoveries are shown in Table 5. More detailed processing recovery relationships are provided in the Technical Appendix.

Table 5: Processing Recoveries

Site	Product	Recovery						Concentrate Moisture Assumptions
		Cu	Zn	Pb	Ag	Au	Mo	
Las Bambas	Copper Concentrate	86%	-	-	75%	71%		10%
	Molybdenum Concentrate						55.5%	5%
Rosebery	Zinc Concentrate		84%					7.8%
	Lead Concentrate		8%	77%	37%	16%		6%
	Copper Concentrate	58%			40%	35%		8.7%
	Doré[1] (gold and silver)				0.14%	24%		
Dugald River	Zinc Concentrate	–	91%		35%	–		9.7%
	Lead Concentrate	–		66%	36%	–		9.2%
Kinsevere and satellites	Copper Cathode	80% (96% CuAS[2])						
	Cobalt Precipitate	64% Co Recovery						

The Technical Appendix published on the MMG website contains additional Mineral Resources and Ore Reserves information (including the Table 1 disclosure).

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[1] Silver in Rosebery doré is calculated as a constant ratio to gold in the doré. Silver is set to 0.17 against gold being 20.7

[2] CuAS = Acid Soluble Copper

MMG Mineral Resources and Ore Reserves Statement

as at 30 June 2022

Technical Appendix

25 October 2022

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APPROVALS PAGE

	Rex Berthelsen	Head of Geology	25/10/2022
Signature	**Name**	**Position**	**Date**
	Cornel Parshotam	Head of Mining	25/10/2022
Signature	**Name**	**Position**	**Date**
	Joshua Annear	General Manager Operations and Technical Excellence	25/10/2022
Signature	**Name**	**Position**	**Date**

The above signed endorse and approve this Mineral Resources and Ore Reserves Statement Technical Appendix.

1 INTRODUCTION

On 20th December 2012 an updated JORC[1] Code was released – the previous release being the 2004 Edition. The JORC Code 2012 Edition defines the requirements for public reporting of Exploration Results, Mineral Resources and Ore Reserves by mining companies. Reporting according to the JORC Code is a requirement of the MMG listing on The Stock Exchange of Hong Kong[2] as per amendments to Chapter 18 of the Listing Rules that were announced on 3rd June 2010.

The core of the change to JORC Code is enhanced disclosure of the material information prepared by the Competent Person with the requirement for the addition of a publicly released detailed Appendix to the Mineral Resources and Ore Reserves release document, which outlines the supporting details to the Mineral Resources and Ore Reserves numbers.

This Technical Appendix provides these supporting details.

Under the JORC Code, reporting in compliance with the guidelines of JORC Code 2012 Edition became compulsory from 1 Dec 2013.

The principles governing the operation and application of the JORC Code are Transparency, Materiality and Competence:

Transparency requires that the reader of a Public Report is provided with sufficient information, the presentation of which is clear and unambiguous, to understand the report and not be misled by this information or by omission of material information that is known to the Competent Person.

Materiality requires that a Public Report contains all the relevant information that investors and their professional advisers would reasonably require, and reasonably expect to find in the report, for the purpose of making a reasoned and balanced judgment regarding the Exploration Results, Mineral Resources or Ore Reserves being reported. Where relevant information is not supplied an explanation must be provided to justify its exclusion.

Competence requires that the Public Report be based on work that is the responsibility of suitably qualified and experienced persons who are subject to an enforceable professional code of ethics (the Competent Person).

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[1] JORC = Joint Ore Reserves Committee.

[2] Specifically, the Updated Rules of Chapter 18 of the Hong Kong Stock Exchange Listing Rules require a Competent Person's report to comply with standards acceptable to the HKSE including JORC Code (the Australian code), NI 43-101 (the Canadian code) or SAMREC Code (the South African code) for Mineral Resources and Ore Reserves. MMG Limited has chosen to report using the JORC Code.

2 COMMON TO ALL SITES

The economic analysis undertaken for each Ore Reserves described in this document and for the whole Company has resulted in positive net present values (NPVs). MMG uses a discount rate appropriate to the size and nature of the organisation and individual deposits.

2.1 Commodity Price Assumptions

The price and foreign exchange assumptions used for the 2022 Mineral Resources and Ore Reserves estimation at the date at which work commenced on the Mineral Resources and Ore Reserves are as shown in Table 1.

Table 1 2022 Price (real) and foreign exchange assumptions

	Ore Reserves	Mineral Resources
Cu (US$/lb)	3.38	4.04
Zn (US$/lb)	1.17	1.39
Pb (US$/lb)	0.89	1.06
Au US$/oz	1,566	1,878
Ag US$/oz	19.60	23.48
Mo (US$/lb)	10.40	12.12
Co (US$/lb)	20.60	30.30
USD:CAD	1.25	As per Ore Reserves
AUD:USD	0.75	
USD:PEN	3.71	

2.2 Competent Persons

Table 2 – Competent Persons

Deposit	Accountability	Competent Person	Professional Membership	Employer
MMG Mineral Resources and Ore Reserves Committee	Mineral Resources	Rex Berthelsen[1]	HonFAusIMM(CP)	MMG
MMG Mineral Resources and Ore Reserves Committee	Ore Reserves	Cornel Parshotam[1]	MAusIMM	MMG
MMG Mineral Resources and Ore Reserves Committee	Metallurgy: Mineral Resources / Ore Reserves	Amy Lamb[1]	MAusIMM	MMG
Las Bambas	Mineral Resources	Hugo Rios[1]	MAusIMM(CP)	MMG
Las Bambas	Ore Reserves	Jorge Valverde[1]	MAusIMM	MMG
Kinsevere	Mineral Resources	Jeremy Witley[2]	Pr.Sci.Nat.	The MSA Group (Pty) Ltd
Kinsevere	Ore Reserves	Dean Basile	MAusIMM(CP)	Mining One Pty Ltd
Rosebery	Mineral Resources	Maree Angus	MAusIMM(CP)	AMC Consultants Limited
Rosebery	Ore Reserves	Andrew Robertson	FAusIMM	Mining Plus Pty Ltd
Dugald River	Mineral Resources	Andrew Fowler	MAusIMM(CP)	Mining Plus Pty Ltd
Dugald River	Ore Reserves	Philip Bremner	FAusIMM	Oreteck Pty Ltd
High Lake, Izok Lake	Mineral Resources	Allan Armitage[3]	MAPEG (P.Geo)	Formerly MMG

The information in this report that relates to Mineral Resources and Ore Reserves is based on information compiled by the listed Competent Persons, who are Members or Fellows of the Australasian Institute of Mining and Metallurgy (AusIMM), the Australian Institute of Geoscientists (AIG) or a Recognised Professional Organisation (RPO) and have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (2012 JORC Code). Each of the Competent Persons has given consent to the inclusion in the report of the matters based on their information in the form and context in which it appears.

---

[1] Participants in the MMG Long-Term Incentive Plans which may include Mineral Resources and Ore Reserves growth as a performance condition

[2] South African Council for Natural Scientific Professions, Professional Natural Scientist

[3] Member of the Association of Professional Engineers and Geoscientists of British Columbia

3 LAS BAMBAS OPERATION

3.1 Introduction and Setting

Las Bambas is a world class copper (Cu) mine with molybdenum (Mo), silver (Ag) and gold (Au) by-product credits. It is located in the Andes Mountains of southern Peru approximately 75km south-southwest of Cusco, approximately 300km north-northwest of Arequipa, and approximately 150km northwest of Espinar (also named Yauri). Las Bambas is readily accessible from either Cusco or Arequipa over a combination of sealed and good quality gravel roads. Road travel from Cusco takes approximately 6 hours, while road travel from Arequipa takes approximately 9 hours.

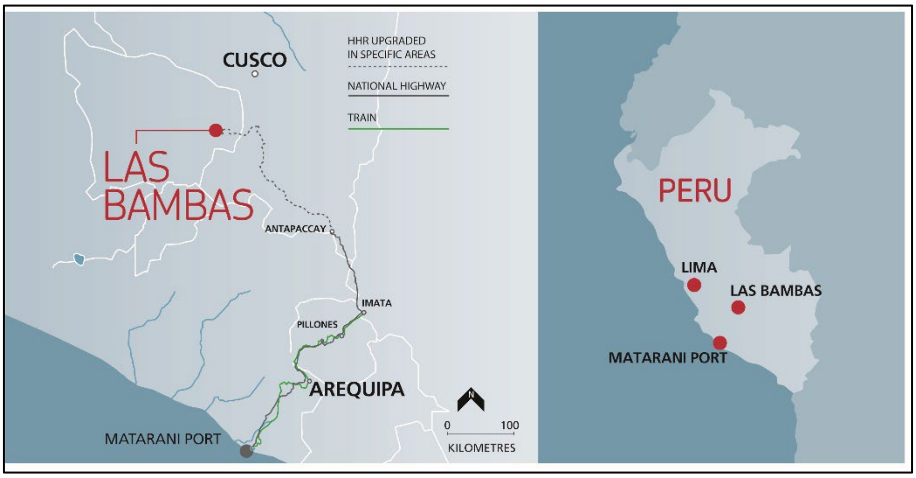


Figure 3-1 Las Bambas Mine location

Las Bambas is a truck and shovel mining operation with a conventional copper concentrator. Copper production commenced in the fourth quarter of 2015 with the first concentrate achieved on 26 November. The first shipment of product departed the Port of Matarani for China on 15 January 2016. Las Bambas is now in its fifth year of operation.

Las Bambas is a joint venture project between the operator MMG (62.5%), a wholly owned subsidiary of Guoxin International Investment Co. Ltd (22.5%) and CITIC Metal Co. Ltd (15.0%).

The Mineral Resources and Ore Reserves have been updated with additional drilling completed in 2021 for the June 2022 report. The 2022 Mineral Resources estimation includes updated geological interpretation and estimation parameters.

3.2 Mineral Resources – Las Bambas

3.2.1 Results

The 2022 Las Bambas Mineral Resources are summarised in Table 3. The Las Bambas Mineral Resources are inclusive of the Ore Reserves. All data reported here is on a 100% asset basis. MMG's attributable interest in Las Bambas is 62.5%.

Table 3 2022 Las Bambas Mineral Resources tonnage and grade (as at 30 June 2022)

Las Bambas Mineral Resource									
						Contained Metal			
Ferrobamba Oxide Copper[1]	**Tonnes (Mt)**	**Copper (% Cu)**	**Silver (g/t Ag)**	**Gold (g/t Au)**	**Mo (ppm)**	**Copper (kt)**	**Silver (Moz)**	**Gold (Moz)**	**Mo (kt)**
Indicated	0.03	1.7				0.5			
Inferred	0	0				0			
Total	**0.03**	**1.7**				**0.5**			
Ferrobamba Primary Copper[2]									
Measured	470	0.56	2.3	0.04	210	2,600	35	0.6	96
Indicated	270	0.7	3.3	0.06	180	1,900	29	0.5	48
Inferred	110	0.84	4.2	0.08	170	960	15	0.3	20
Total	**850**	**0.64**	**2.9**	**0.05**	**190**	**5,500**	**79**	**1.4**	**160**
Ferrobamba Total	**850**	**0.64**	**2.9**	**0.05**	**190**	**5,500**	**79**	**1.4**	**160**
Chalcobamba Oxide Copper[1]									
Indicated	6.8	1.4				97			
Inferred	0.1	1.5				1			
Total	**6.9**	**1.4**				**98**			
Chalcobamba Primary Copper[3]									
Measured	140	0.54	1.7	0.02	140	750	7.3	0.09	19
Indicated	180	0.64	2.5	0.03	110	1,100	14	0.17	20
Inferred	29	0.56	2.4	0.03	130	160	2.3	0.03	3.8
Total	**340**	**0.6**	**2.1**	**0.03**	**120**	**2,100**	**24**	**0.29**	**42**
Chalcobamba Total	**350**	**0.61**	**2.1**	**0.03**	**120**	**2,200**	**24**	**0.29**	**42**
Sulfobamba Primary Copper[4]									
Indicated	84	0.67	4.7	0.02	170	560	13	0.1	14
Inferred	98	0.58	6.5	0.02	120	570	20	0.1	12
Total	**180**	**0.62**	**5.7**	**0.02**	**140**	**1100**	**33**	**0.1**	**26**
Sulfobamba Total	**180**	**0.62**	**5.7**	**0.02**	**140**	**1,100**	**33**	**0.1**	**26**
Oxide Stockpiles									
Indicated	14	1.1				150			
Sulphide Stockpiles									
Measured	30	0.38	2.2		130	110	2.1		3.9
Total Contained	**1,400**	**0.63**	**3**	**0.04**	170	**9,000**	**140**	**2**	**240**

Notes:

[1] 1% Cu Cut-off grade contained within a US$4.04/lb pit shell for oxide material.

[2] Average 0.16% Cu Cut-off grade contained within a US$4.04/lb pit shell for primary material.

[3] Average 0.18% Cu Cut-off grade contained within a US$4.04/lb pit shell for primary material.

[4] Average 0.20% Cu Cut-off grade contained within a US$4.04/lb pit shell for primary material.

Figures are rounded according to JORC Code guidelines and may show apparent addition errors.

Contained metal does not imply recoverable metal.

3.2.2 Mineral Resources JORC 2012 Assessment and Reporting Criteria

The following information provided in Table 4 complies with the 2012 JORC Code requirements specified by "Table-1 Section 1-3" of the Code.

Table 4 JORC 2012 Code Table 1 Assessment and Reporting Criteria for Las Bambas Mineral Resources 2022

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
Sampling techniques	• Diamond drilling (DD) was used to obtain an average 2m sample that is half core split, crushed and pulverised to produce a pulp (95% passing 105µm). Diamond core is selected, marked and numbered for sampling by the logging geologist. • Since 2019 samples have also been obtained from Reverse Circulation drilling machines for infill drilling programs, using an automatic rotation splitter to obtain two (duplicate) samples with an average weight of 5Kg corresponding to 2m drilled. • Samples for analysis are bagged, shuffled, re-numbered and de-identified prior to dispatch. • The information of sampling is stored in the Geobank® database for correlation with returned geochemical assay results. • Whole core was delivered to the Inspectorate Laboratory in Lima (2005-2010) and Certimin Laboratory in Lima (2014 to 2015) for half core splitting and sample preparation. From mid-2015 core samples were cut and sampled at an ALS sample preparation laboratory on-site. Samples are then sent to ALS laboratory in Lima for preparation and analysis. • There are no inherent sampling problems recognised. • Measures taken to ensure sample representativity include the collection, and analysis of coarse crush duplicates.
Drilling techniques	• The most widely technique historically used in Las Bambas was the diamond drilling, however, in 2019 the reverse air circulation drilling has been also implemented for infill drilling short-length holes, working with both methods depending on the planned lengths. • Generally, drill core is not oriented, however unless for drill holes for geotechnical purposes. All drillholes used in the Mineral Resource estimates have been drilled using HQ size.
Drill sample recovery	• Recovery is estimated by measuring the recovered core within a drill run length and recorded in the database. Run by run recovery has been recorded for 608,372.82m of the total 725,936.33m of diamond drilling and RC in the data used for Mineral Resources estimation for the Sulfobamba, Chalcobamba and Ferrobamba deposits. Diamond drill recovery average is about 97% for all deposits (98% for Sulfobamba, 98% for Chalcobamba and 95% for Ferrobamba deposits). • Sample quality is acceptable for dry samples, with practical sample recovery per meter drilled, finding loss of samples during rod changes. The material lost is interpreted as an operational process to be improved. The Coefficient of Variation from field duplicate samples is less than 5% for copper.

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	• The drilling process is controlled by the drill crew, and geological supervision provides a means for maximising sample recovery and ensures suitable core presentation. No other measures are taken to maximise core recovery. • There is no detectable correlation between recovery and grade which can be determined from graphical and statistical analysis. Preferential loss/gains of fine or coarse materials are not significant and do not result in sample bias as the nature of mineralisation is stockwork veins and disseminated sulphides. Diamond core sampling is applied, and recovery is considered high.
Logging	• 100% of diamond drill core and reverse circulation percussion drilling used in the Mineral Resource estimates has been geologically and geotechnically logged (DD only) to support Mineral Resources estimation, mining and metallurgy studies. • Geological logging is qualitative and geotechnical logging is quantitative. All drill cores and RC chips are photographed.
Sub-sampling techniques and sample preparation	• All samples included in the Mineral Resource estimates are from diamond drill core and reverse circulation. • Drill core is longitudinally sawn to provide half-core samples within intervals directed by the logging geologist. The remaining half-core is kept and stored in the original sample tray. The standard sampling length is 2m for PQ core (minimum 1.2m) and HQ core (minimum 1.2m, maximum 2.2m) while NQ core is sampled at 2.5m (minimum 1.5m). Sample intervals do not cross geological boundaries. • From 2005 until 2010 geological samples have been processed in the following manner: Dried, crushed, pulverised to 95% passing 105µm. Sizing analysis is carried out on 1 in 30 samples. • From 2010 geological samples have been processed in the following manner: Dried, crushed, pulverised to 95% passing 106µm. Sizing analyses are carried out on in 30 samples. • Representativity of samples is checked by duplication at the crush stage one in every 40 samples. No field duplicates are taken for DDH. • RC Drilling was officially implemented for Resource Estimations since 2019 (in 2018 only tests were executed, not including information from RC to the resource model). • In 2019 Samples were collected in buckets, weighted, and split on-site using a riffle splitter, aimed at obtaining 2 to 3 kg subsample, weighted on-site with an electronic balance. • Regular practice is that, if a sample from a cyclone is: ○ less than 4-6 kg, no split is undertaken ○ 6- 12 kg, two subsamples are taken ○ 12-24 kg, a split is undertaken as necessary to get 3 kg sample splits. • Since 2020 so far, an automated vibrating rotary splitter has been implemented to take 2m interval samples in the cyclone, using a couple of trays which take 3 to 6 kg in average (original and duplicate); samples are collected in plastic bags and weighted in an electronic balance on-site, ready to be sent to the lab.

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	• The cone splitter has the option for controlling the rotation speed and the tray aperture, allowing to get the amount of material without overspill, or not getting enough material. • In the case of wet samples all the material is collected in microporous bags, to be dried on air and then split using riffle splitters. • The sample types, nature, quality and sample preparation techniques are considered appropriate for the style of the Las Bambas mineralisation (porphyry and skarn Cu-Mo mineralisation) by the Competent Person.
Quality of assay data and laboratory tests	• From 2005 until 2010 the assay methods undertaken by Inspectorate (Lima) for Las Bambas were as follows: o Digestion by 4-Acids. Cu, Ag, Pb, Zn, Mo - 0.5g of sample, and the determination was done by Atomic Absorption Spectrometry (AAS). o Acid soluble - 0.2g sample. Leaching by a 15% solution of H_2SO_4 at 73°C for 5 minutes. Determination by AAS. o Acid soluble - 0.2g of sample. Digestion by a citric acid solution at 65°C for 15 minutes. Determination by AAS. o Au – 30g Fire Assay Cupellation at 950°C. Determination by AAS. Above detection limit analysis by gravimetry. o 35 elements - Digestion by aqua-regia and determination by ICP. • From 2010 to 2015, routine assay methods undertaken by Certimin (Lima) for Las Bambas are as follows: o Cu, Ag, Pb, Zn, Mo - 0.5g of sample. Digestion by 4-Acids. Determination by Atomic Absorption Spectrometry (AAS). o Acid soluble copper – 0.2g sample. Leaching by a 15% solution of H_2SO_4 at 73°C for 5 minutes. Determination by AAS. o Acid Soluble copper - 0.2g of sample. Digestion by a citric acid solution at 65°C for 15 minutes. Determination by AAS. o Au – 30g Fire assay with AAS finish. Over-range results are re-assayed by Gravimetric Finish. o 35 elements - Digestion by aqua-regia and determination by ICP. • In 2015 ALS (Lima) used the following methods: o Cu, Ag, Pb, Zn, Mo - 0.5g of sample. Digestion by 4-Acids. Determination by Atomic Absorption Spectrometry (AAS). o Acid soluble copper – 0.5g sample. Leaching by a 5% solution of H_2SO_4 at ambient temperature for 1 hour. Determination by AAS. o Au – 30g Fire assay with AAS Finish. Over-range results are re-assayed by Gravimetric Finish. o 52 elements - Digestion by aqua-regia and determination by ICP. • From 2016 to present routine assay methods undertaken by ALS (Lima) for Las Bambas are as follows: o Cu, Ag, Mo. Digestion by 4-Acids and determination by Atomic Absorption o Cu Sequential: Cu is reported as soluble in sulfuric acid, Soluble in cyanide and residual. Determination by Atomic Absorption. o Au – 30g Fire assay with AAS Finish. Over-range results are re-assayed by Gravimetric Finish.

Section 1 Sampling Techniques and Data

Criteria	Commentary
	○ 60 elements - Digestion by 4-Acids and determination by ICP, includes a package of rare earth elements. • All the above methods except the acid-soluble copper are considered as a quasi-total digest. • Until 2017 inclusive, 6-8 meters composite samples were analysed by sequential copper methods. • In 2018 and 2019, all unassayed 2m pulps where the original copper grade was >0.1% were analysed by the sequential copper method by ALS Global Laboratory. • Currently the pulps are sent for sequential copper analysis in samples that exceed 0.1% Cu. • The site previously employed a practice of 'double blind' sample randomisation at the laboratory. It essentially guarantees the secrecy of the results from the operating laboratory. It does however pose a minor risk of compromising sample provenance, although the risk is probably low. This practice has now ceased. • No geophysical tools, spectrometers or handheld XRF instruments have been used to analyse samples external to the ALS laboratory for the estimation of Mineral Resources. • Assay techniques are considered suitable and representative; independent umpire laboratory checks occurred routinely between 2005-2010 using the ALS Chemex laboratory in Lima. Check samples were inserted at a rate of 1 in every 25 samples (2005-2007), every 50 samples (2008) and every 40 samples (2010). • For the 2014 to 2018 sampling programs, duplicated samples were collected at the sampling time and securely stored. Samples were then sent to the Inspectorate Laboratory, Lima, for third party (umpire) analysis. The samples were selected at a rate of 1:40. Analytical results indicated a good correlation between datasets and showed no significant bias for copper, molybdenum, silver, and gold. • In 2019, Certimin was selected as the umpire laboratory, using similar rate of sample selection, 1 in 20 samples, using the criteria to check samples over 0.1% Copper. • From 2020 to the present, Las Bambas is using Inspectorate-BV laboratory for the umpire assay checks. In 2021 we used Geobank® software to make the automatic sample selection. The sample selection rate is 1 in 20, checking samples over 0.1% copper. • ALS provided quarterly QAQC reports to Las Bambas for analysis of internal laboratory standard performance. The performance of the internal laboratory preparation and assaying processes is within acceptable limits. • Las Bambas routinely insert: ○ Primary coarse duplicates: Inserted at a rate of 1:25 samples (2005-2007), 1:50 samples (2008), and 1:40 samples (2010-2021). ○ Coarse blank samples: Inserted after a high-grade sample (coarse blank samples currently make up about 4.1% of all samples analysed). ○ Pulp duplicates samples: Inserted 1:25 samples (2005-2007), 1:50 samples (2008), and 1:40 samples (2010-2021).

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	○ Pulp blank samples: Until 2018 inclusive, these controls were inserted before the coarse blank sample, and always after a high-grade sample (blank pulp samples currently make up about 4.1% of all samples analysed). • From 2019 to the present, pulp blanks are inserted at a rate of 1 in 100 samples. ○ Certified Reference Material (CRM) samples: Inserted at a rate of 1:50 samples (2005-2006), 1:40 samples (2007) and 1:20 samples (2008 to the present). • QAQC analysis has shown that: ○ Blanks: no significant evidence of contamination has been identified during the sample preparation and assay. ○ Duplicates: the analytical precision is within acceptable ranges when compared to the original sample, i.e., more than 90% of the pairs of samples are within the error limits evaluated for a maximum relative error of 10% (R2>0.90). In 2021, all average Coefficient of Variation (CV%) calculated from coarse and pulp duplicates is acceptable. These results were also repeated in the external ALS check samples. ○ Certified Reference Material: acceptable levels of accuracy and precision have been established. In 2021 we run a recertification Round Robin with the Las Bambas matrix CRMs, by the provider OREAS, to get copper-molybdenum-silver determinations by specific AAS and ICP separately, allowing to produce digestion/determination matched Statistics and Control Graphics. ○ Sizing test results were applied to 3% of samples. In 2021, sizing tests results are inside acceptable parameters. • Density control was implemented from 2015 onwards; an acceptable density range was established for each rock type unit for each deposit group of samples. • Sample Weight: in 2021, a minimum sample size study was carried out (Agoratek International Consultants Inc.) to verify the current drill sampling and preparation protocols, concluding that the actual average sample weight used are within the safe and acceptable limits to get representative copper and molybdenum analysis. Three kilograms (3kg) are defined as minimum rock sample size for the diamond drilling half-core and the Reverse Circulation chips sampling.
Verification of sampling and assaying	• Until 2018, sampling and assaying verification by independent personnel was not undertaken at the time of drilling. However, drilling, core logging and sampling data are entered by the geologists; assay results are entered by the geochemistry geologist after the data was checked for outliers, sample swaps, performance of duplicates, blanks and standards, and significant intersections are checked against core log entries and core photos. Errors are rectified before data is entered into the database. • From 2019 to present, the workflow is: logging and sample definition is done by the logging geology team. The geochemist geologist supervises the QAQC sample insertion and sample Dispatch to the laboratory. Assays are reported directly to the Database Team for uploading into the database. The geochemist geologist validates the QAQC from each laboratory assay certificated. Subsequently, the data is released for its use. • In 2019-2020 a twinning program was completed to test RC drilling against previously completed Diamond Drill holes. The lithology, grade distribution and

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	variability between dry and wet samples comparison were made. Nine RC drill holes twinned existing DDH. • In 2021 Agoratek International Consultants Inc validated the RC sampling process, particularly the automatic sample splitter, based on a heterogeneity test previously obtained from blastholes, the study endorsed an adequate process both for Cu and Mo, considering the economic cut-off grades of both elements. • All drill holes are logged using tablets directly into the drill hole database (Geobank). Before November 2014, diamond drill holes were logged on paper and transcribed into the database. Assay results are provided in digital format (both spreadsheet and PDF) by the laboratories and are automatically loaded into the database after validation. All laboratory primary data and certificates are stored on the Las Bambas server. • The database has internal validation processes which prevent invalid or unapproved records from being stored. Additional manual data validation occurs in Geobank® and Vulcan software before data is used for interpretation and Mineral Resources modelling. The unreliable information is flagged and excluded from Mineral Resources estimation work. • No adjustments have been made to assay data – if there is any doubt about the data quality or location, the drillhole is excluded from the estimation process.
Location of data points	• In 2005 collar positions of surface drillholes were picked up by Horizons South America using Trimble 5700 differential GPS equipment. From 2006, the Las Bambas engineering personnel have performed all subsequent surveys using the same equipment. Since 2014, drillholes are set out using UTM co-ordinates with a handheld Differential Global Positioning System (DGPS) and are accurate to within 1m. On completion of drilling, collar locations are picked up by the onsite surveyors using DGPS (Trimble or Topcon). During the 2019 drilling campaign MMG team undertook a survey of drillhole collar locations using Differential GPS. But they also used a TN14 Reflex for alignment of the drilling machine. These collar locations are accurate to within 0.5m. • During the 2014 due diligence process (2014) RPM independently checked five collar locations at Ferrobamba and Chalcobamba with a handheld GPS and noted only small differences and well within the error limit of the GPS used. RPM did not undertake independent checking of any Sulfobamba drillholes. The collar locations are considered accurate for Mineral Resources estimation work. • In 2005 the drilling contractor conducted downhole survey's using the AccuShot method for non-vertical drillholes. Vertical holes were not surveyed. If the AccuShot arrangement was not working, the acid test (inclination only) was used. Since 2006, all drillholes are surveyed using Reflex Maxibor II equipment units which take measurements every 3m. The downhole surveys are considered accurate for Mineral Resources estimation work. • The datum used is WGS 84 with a UTM coordinate system zone 18 South. • In 2006 Horizons South America surveyed the topography at a scale of 1:1000 based on aerophotogrametric restitution of orthophotos. A digital model of the land was generated every 10m and, using interpolation, contour lines were obtained every metre. The maps delivered were drafted in UTM coordinates and the projections

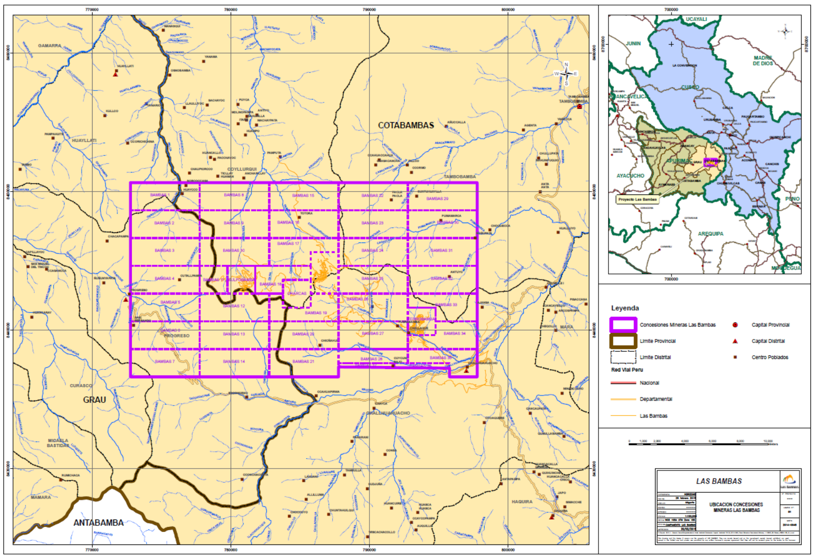
Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	used were WGS 84 and PSAD 56. A triangulated surface model presumably derived from this survey is in current use at site and is considered suitable for Mineral Resources and Ore Reserves estimation purposes. • Downhole surveys are now routinely completed by modern gyroscope techniques. Instruments such as Champ Navigator, aligner and Gyro Sprint-IQ are employed.
Data spacing and distribution	• The Las Bambas mineral deposits are drilled on variable spacing dependent on rock type (porphyry vs. skarn). Drill spacing typically ranges from 100m x 100m to 25m x 25m and is considered sufficient to establish the degree of geological and grade continuity appropriate for Mineral Resources estimation and classifications applied. • Drillhole spacing of approximately 25m x 25m within skarn hosted material and 50m x 50m within porphyry hosted is considered sufficient for long term Mineral Resources estimation purposes based on a drillhole spacing study undertaken in 2015. While the 25m spacing is suitable for Mineral Resource estimation, the Las Bambas deposits tend to have short scale 5m - 10m variations within the skarn that are not captured by the infill drilling at this spacing. This localised geological variability is captured by mapping and drillhole logging. • Diamond drillhole samples are not composited prior to routine chemical analysis; however, the nominal sample length is generally 2m.
Orientation of data in relation to geological structure	• Overall drillhole orientation is planned at 90 degrees to the strike of the mineralised zone for each deposit. Drillhole spacing and orientation is planned to provide evenly spaced, high angle intercepts of the mineralised zone where possible, thus minimising sampling bias related to orientation. However, in some areas of Ferrobamba where skarn mineralisation is orientated along strike, holes orientations were not adjusted. • Drilling orientation is not considered to have introduced sampling bias.
Sample security	• Measures to provide sample security include: o Adequately trained and supervised sampling personnel. o Samples are stored in a locked compound with restricted access during preparation. o Dispatch to various laboratories via contract transport provider in sealed containers. o Receipt of samples acknowledged by receiving analytical laboratory by email and checked against expected submission list. o Assay data returned separately in both spreadsheet and PDF formats.
Audit and reviews	• In 2015, an internal audit, checking 5% of the total samples contained in the acQuire database (at that time) was undertaken comparing database entry values to the original laboratory certificates for Cu, Ag, Mo, As and S. No material issues were identified. • An independent third-party audit was completed by AMC Consultants (Brisbane office) on the 2017 Mineral Resource model in February 2018. The audit identified some minor improvements to the estimation process but concluded there were not material issues or risks to long term mine planning. • Given to COVID19 pandemic there was no option to visit the laboratory in the year 2020, re-establishing visits to the lab in 2021.

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	• AMC Consultants executed a third-party independent audit of both the Ferrobamba and Chalcobamba models in 2020. AMC have reported no material issues from the audit.

Section 2 Reporting of Exploration Results	
Criteria	**Commentary**
Mineral tenement and land tenure status	• The mineral resources of Peru are owned by the Peruvian State and the private sector can only exploit them in accordance with the Peruvian system of concessions. According to Peruvian legislation, investors can carry out mining activities in Peru only after obtaining the necessary concessions and the corresponding permits. Therefore, the concession system is the mechanism conceived under Peruvian legislation to grant rights to perform mining exploration, exploitation, processing and transportation of minerals, among others. • Las Bambas consists of 41 mining concessions (collectively, "The Property"), which are listed in the following table:

No.	**Name**	**Identification code**	**Extension Available (Ha)**	**No.**	**Name**	**Identification code**	**Extension Available (Ha)**
1	Bambas 1	10315610	1,000	**22**	Bambas 22	10317710	1,000
2	Bambas 2	10315710	1,000	**23**	Bambas 23	10317810	1,000
3	Bambas 3	10315810	1,000	**24**	Bambas 24	10317910	1,000
4	Bambas 4	10315910	1,000	**25**	Bambas 25	10318010	1,000
5	Bambas 5	10316010	990.9676	**26**	Bambas 26	10318110	1,000
6	Bambas 6	10316110	884.788	**27**	Bambas 27	10318210	1,000
7	Bambas 7	10316210	987.9216	**28**	Bambas 28	10318310	500
8	Bambas 8	10316310	1,000	**29**	Bambas 29	10318410	1,000
9	Bambas 9	10316410	1,000	**30**	Bambas 30	10318510	1,000
10	Bambas 10	10316510	1,000	**31**	Bambas 31	10318610	1,000
11	Bambas 11	10316610	400	**32**	Bambas 32	10318710	1,000
12	Bambas 12	10316710	1,000	**33**	Bambas 33	10318810	800
13	Bambas 13	10316810	1,000	**34**	Bambas 34	10318910	800
14	Bambas 14	10316910	1,000	**35**	Bambas 35	10319010	700
15	Bambas 15	10317010	1,000	**36**	Bambas 36	10409411	141.4319
16	Bambas 16	10317110	1,000	**37**	Bambas 37	10409511	123.408
17	Bambas 17	10317210	800	**38**	Sulfobamba	05580414Z04	400
18	Bambas 18	10317310	600	**39**	Ferrobamba	05580414Z02	400
19	Bambas 19	10317410	800	**40**	Chalcobamba	05580414Z05	600
20	Bambas 20	10317510	1,000	**41**	Charcas	05580414Z03	400
21	Bambas 21	10317610	1,000	**TOTAL**		**Approx. 34,328**	

- The Peruvian State has granted each of the 41 mining concessions that comprise the Property, the concession title in a valid manner, after having completed the corresponding procedure. Subsequently, these were registered in the Registry of Mining Rights that forms part of the Real Property Registry of the National System of Public Registries for an indefinite period. It is important to note that these concessions are valid and enforceable against third parties and the State. Each of the 41 mining concessions that comprise the Property grant its owners (that is, Minera Las Bambas SA) the exclusive right to explore and exploit all metallic minerals within their internal limits.
- Each of the rights linked to the mining concessions that comprise the Property are independent of all rights related to the surface (i.e., surface lots) where said mining concessions are located. In effect, the Mining Law establishes that the mining concession is a different property and separate from the land property where it is located. The below map outlines the 41 Mining Concessions granted to Minera Las Bambas S.A. Tenure over the 41 Concessions is in good standing. There are no known legal impediments to operate in the area.



Exploration done by other parties

- Las Bambas project has a long history of exploration by the current and previous owners. Exploration commenced in 1966, now with more than 700km of drilling so far.
- Initial exploration drilling commenced in Chalcobamba in 1996 by Cerro de Pasco followed by Cyprus in the same year, totalizing 2,273m of diamond drill cores; in 1997 Phelps Dodge and BHP executed 2,416m of diamond drilling in Ferrobamba and Chalcobamba, and in 2003 Pro Invest drilled 2,328m of DDH in the same targets, as outlined in the table below.

EXPLORATION HOLES EXECUTED BY OTHER PARTIES - NOT INCLUDED IN THE DATABASE FOR RESOURCE ESTIMATION

Company	Year	Deposit	Purpose	Type	# Holes	DH size	Total (m)
Cerro de Pasco	1996	Chalcobamba	Exploration	DDH	6	UNK	906
Cyprus	1996	Chalcobamba	Exploration		9		1 367
Phelps Dodge	1997	Ferrobamba	Exploration	DDH	4	UNK	738
		Chalcobamba			4		653
BHP	1997	Ferrobamba	Exploration	DDH	3	UNK	366
		Chalcobamba			4		659
Pro Invest	2003	Ferrobamba	Exploration	DDH	4	HQ	738
		Chalcobamba			7		1 590

- In 2005 Xstrata started an aggressive drilling campaign in Ferrobamba, Chalcobamba and Sulfobamba. Later in 2013, Glencore and Xstrata merged to form Glencore plc., then MMG Ltd, Guoxin International Investment Corporation Limited and CITIC Metal Co. Ltd entered into an agreement to purchase the Las Bambas project from Glencore plc. It is noticeable that the available information in the data base for resource estimation purposes starts in 2005 (drillholes from Xstrata and later), as detailed in the table below.
- In 2022 some holes were removed from the estimation process due to their low reliability. A total of 177 holes (40,504.2m) from Ferrobamba and 116 holes (17,370.7m) from Chalcobamba were removed, given that they were reused from other objectives than resource evaluation, or flawed with significant errors in collar, survey, logging, assays, etc.

DRILL HOLES EXECUTED BY XSTRATA AND MMG - INCLUDED IN THE DATABASE FOR RESOURCE ESTIMATION

Company	Year	Deposit	Purpose	Type	# of DDH	Drill size	Metres Drilled
Xstrata	2005	Ferrobamba	Resource Evaluation	DDH	109	HQ	26,840
		Chalcobamba			66		14,754
		Sulfobamba			60		13,943
	2006	Ferrobamba	Resource Evaluation	DDH	124	HQ	50,432
		Chalcobamba			95		27,983
		Sulfobamba			60		16,972
	2007	Ferrobamba	Resource Evaluation	DDH	163	HQ	53,589
		Chalcobamba			137		37,204
		Sulfobamba			22		4,997
	2008	Ferrobamba	Resource Evaluation	DDH	112	HQ	44,235
		Chalcobamba			90		22,097
	2009	Ferrobamba	Resource Evaluation	DDH	1	HQ	331
	2010	Ferrobamba	Resource Evaluation	DDH	91	HQ	28,400
MMG	2014	Ferrobamba	Resource Evaluation	DDH	23	HQ	12,610
	2015	Ferrobamba	Resource Evaluation	DDH	153	HQ	53,752
	2016	Ferrobamba	Resource Evaluation	DDH	104	HQ	29,408
		Chalcobamba	Resource Evaluation	DDH	9		1,629
	2017	Ferrobamba	Resource Evaluation	DDH	45	HQ	20,463
	2018	Ferrobamba	Resource Evaluation	DDH	104	HQ	54,076
		Chalcobamba	Resource Evaluation	DDH	49		10,452
	2019	Ferrobamba	Resource Evaluation	DDH	109	HQ	40,530
				RC	52		6,804
		Chalcobamba	Resource Evaluation	DDH	78	HQ	28,653
				RC	3		139
	2020	Ferrobamba	Resource Evaluation	DDH	31	HQ	7,854
				RC	38		5,507
		Chalcobamba	Resource Evaluation	DDH	115	HQ	22,749
				RC	1		300
	2021	Ferrobamba	Resource Evaluation	DDH	161	HQ	42,712
				RC	154		24,460
		Chalcobamba	Resource Evaluation	DDH	189	HQ	30,380
				RC	2		550
	2022[1]	Ferrobamba	Resource Evaluation	DDH	6	HQ	1,703
				RC	8		1,072
			Total		2564		**737,579**

Geology

- Las Bambas is located in a belt of Cu (Mo-Au) skarn deposits associated with porphyry type systems situated in south-eastern Peru. This metallogenic belt is controlled by the Andahuaylas-Yauri Batholith of Eocene- Oligocene age, which is emplaced in strongly folded and faulted Mesozoic sedimentary units, with the Ferrobamba Formation (Lower to Upper Cretaceous) being of greatest mineralising importance.

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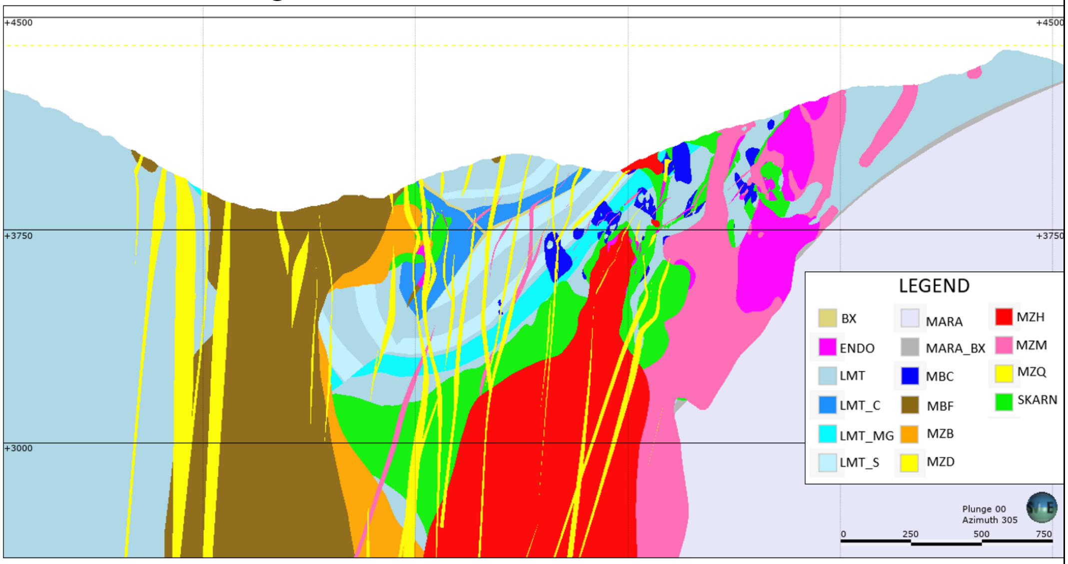
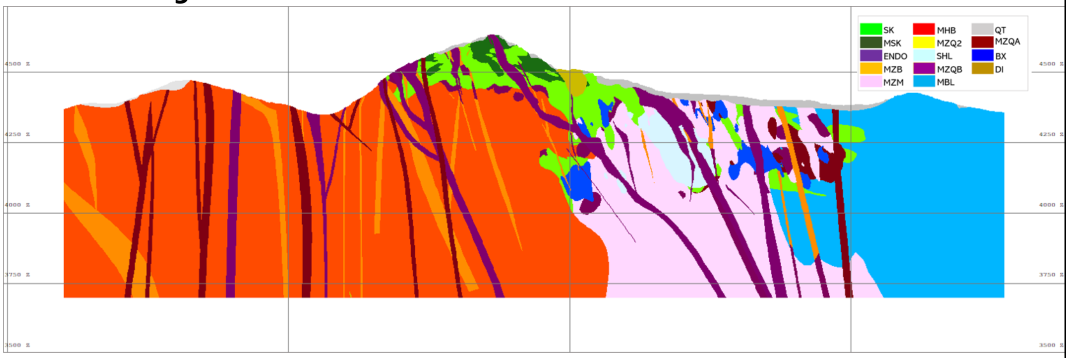
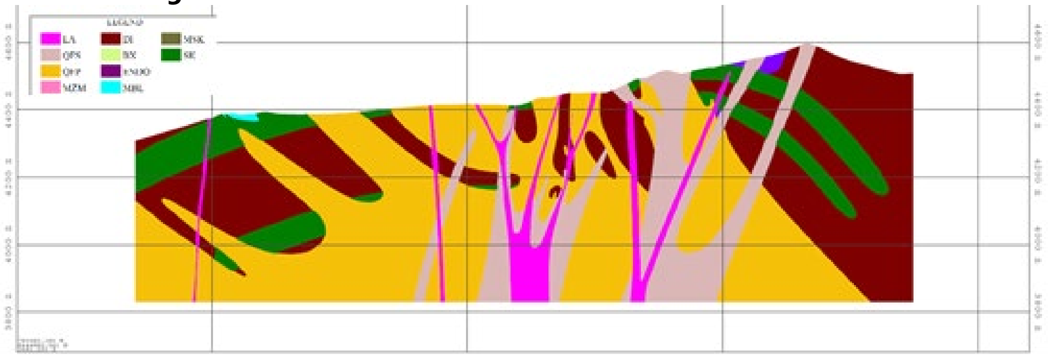
[1] Drill holes to January 2022

	• The porphyry style mineralisation occurs in quartz-monzonite to granodiorite rocks. The main economic hypogene minerals are bornite, chalcopyrite and molybdenite, with minor occurrence of supergene copper oxides and carbonates near surface. The intrusive rocks of the batholith in contact with the Ferrobamba limestones gave rise to contact metamorphism and, in certain locations, skarn (garnet, pyroxene and magnetite) bodies with Cu (Mo-Au) mineralisation.
Drillhole information	• Historical exploration drillholes (prior to 2005) have been excluded from the Mineral Resource estimates. • Drillhole data is not provided in this report as this report is for the Las Bambas Mineral Resources which use all available data and no single hole is material for the Mineral Resource estimates.
Data aggregation methods	• No metal equivalents are used in the Mineral Resources estimation.
Relationship between mineralisation width and intercepts lengths	• The geological modelling is assisted by 3D implicit modelling (Leapfrog3D), this software allows modelling tri-dimensionally without the need to go through sections, allowing a more accurate identification of contacts and hence honouring the data in the modelling process. • Infill drilling campaigns are now more accurate as holes can be oriented perpendicularly to the mineralized orebodies, instead of going strictly through predefined sections.
Diagrams	**Section Through Ferrobamba** 

	Section Through Chalcobamba  **Section Through Sulfobamba** 
Balanced reporting	• All drilling completed during the 2021 reporting period completed at Ferrobamba and Chalcobamba is infill in nature. Historical exploration drillholes (prior to 2005) have been excluded from the Mineral Resource estimates. A small number of holes were drilled at Ferrobamba and Chalcobamba for the purpose of hydrogeology and geotechnical.
Other substantive exploration data	• The exploration drilling campaign was directed to Chalcobamba SW; in the case of Ferrobamba exploration has been addressed at depth, looking for geological continuity particularly in the exoskarn. • In previous years, several orebody-knowledge studies have been carried out including skarn zonation, vein densities, age dating, deposit paragenesis, clay / talc sampling, and wall rock control of the skarn mineralisation. Recent work has focused on relogging and standardizing the logging database, in order to be able to model the intrusive units and limestone protoliths with greater accuracy and precision, to benefit resource estimation, geotechnical designs and blast hole modelling. Limestone protoliths are important for geotechnical characteristics, as inward dipping slopes on several walls have already caused structural failures.
Further work	• An ongoing program of regional and deposit scale mapping, cross sectional studies, infrared spectral analyses, isotopic and petrographic studies and soil sampling. • A program of exploration assessment and targeting is currently underway to identify exploration options for the Las Bambas leases. • Permitting for regional exploration drilling is underway. • Ongoing infill programs are planned to increase deposit confidence to support the short to medium term mine plan, In addition, the Las Bambas Mineral Resource has potential to grow to extend the life of the mine and/or support expansions and replace the annual mined Ore Reserve depletion.

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
Database integrity	• The following measures are in place to ensure database integrity: o All Las Bambas drillhole data is stored in a Microsoft SQL Server database on the Las Bambas site server, which is regularly backed up following IT policies. o Geological logging is entered directly into laptop computers which are uploaded to the database. Prior to November 2014, diamond drillholes were logged on paper logging forms and transcribed into the database. From November 2015 logging was entered directly into a customised interface using portable tablet computers using AcQuire. From February 2019, logging was entered directly into Geobank® using internal validation rules set in the software. o Assays are loaded directly into the database from encrypted digital files provided from the assay laboratory. o The measures described above ensure that transcription or data entry errors are minimised. • Data validation procedures include: o A database validation project was undertaken in early 2015 checking 5% of the assayed samples in the database against original laboratory certificates. No material issues were identified. o In April 2021, an internal database validation took place to check randomly 5% of the assayed samples (data from 2020 and previous years) comparing recorded information vs original laboratory certificates. No material issues were identified. o The database has internal validation processes which prevent invalid or unapproved records to be stored.
Site visits	• The Competent Person has undertaken numerous site visits to Las Bambas since acquisition, though during 2021 only one visit has been executed, given to Covid-19 restrictions, and further social contingencies. In the view of the Competent Person there are no material risks to the Mineral Resources based on observations of the site's geological practices.
Geological interpretation	• There is good confidence on the geological continuity and interpretation of the Ferrobamba and Chalcobamba deposits. Confidence in the Sulfobamba deposit is considered moderate due to limited drilling. • The 2022 geological interpretation was undertaken on sections oriented perpendicular to the established structural trend of each deposit, using 3D implicit modelling with Leapfrog® software. Section spacing for the interpretations varied between deposits from 25m at Ferrobamba and Chalcobamba to 50m at Sulfobamba. The geological logging, assay data, blast hole information and surface mapping were used in the interpretation. The drilling and surface mapping were checked against each other to ensure they were concordant. The updating of the lithological model was carried out with the advice and validation of the Principal Exploration Geologist. • No alternative interpretations have been generated for the Las Bambas mineralisation and geology. • Exploratory data analysis (EDA) indicated that the lithological characterisation used for the 2021 geological interpretation were for the most part valid (with minor changes) and were applied for the 2022 modelling. Each lithological unit was modelled according to age, with the youngest modelled first. Structural considerations such as plunge of the units, folding and faults were taken into consideration (where

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
	information existed). Orthogonal sections were also interpreted to ensure lithological continuity. • In 2019, the Chalcobamba geological model and interpretation was changed based on a complete relog of the deposit combined with detailed surface mapping. • Also, in Ferrobamba 2020 model, a grade shell domain was updated in each porphyry and marble based on 0.1% Cu cut off. • In 2021 the 0.1%Cu grade-shell was extended to ENDO, MBC, MBL, MZB, MZH, MZQ-MZD, MZM and MBF. These criteria are to better constrain the estimation of grade and prevent over-smoothing or smearing. This model was constructed with Leapfrog® using RBF Interpolant transforming numeric data into categoric, with the use of interval selection. • Oxidation domains were produced for the Ferrobamba and Chalcobamba models. Oxidation domains were based on logged mineral species, sequential copper and acid soluble copper to total copper assay ratios, each of which had a priority to represent the oxidation field. • Geological interpretations were then modelled as wireframe solids (based on the sections) and were peer reviewed with the Principal Exploration Geologist and the Mineral Resources Competent Person. • Specific grade domains (copper and molybdenum) were not created, except for interpreted, spatially coherent high-grade shoots at Sulfobamba. A domain cut-off of 0.8% Cu was used for the high-grade domain, and by Chalcobamba was used a domain cut-off of 0.5% Cu. The introduction of the high-grade domain was supported by EDA, contact plots, and change of support analysis.
Dimensions	• The Las Bambas Mineral Resources comprise three distinct deposits; each have been defined by drilling and estimated: ○ Ferrobamba Mineral Resources occupies a footprint which is 2500m N-S and 1800m E-W and over 900m vertically. ○ Chalcobamba Mineral Resources occupies a footprint of 2300m N-S and 1300m E-W and 800m vertically ○ Sulfobamba Mineral Resources is 1800m along strike in a NE direction and 850m across strike in a NW direction and 450m deep.
Estimation and modelling techniques	• Mineral Resources estimation for the three deposits has been undertaken in Vulcan (Maptek) mining software with the following key assumptions and parameters: • Ordinary Kriging interpolation has been applied for the estimation of Cu, Mo, Ag, Au, As, Ca, Mg, Fe, S, CuAS (acid soluble copper), CuCN (cyanide soluble copper), CuRE (residual copper) and density. This is considered appropriate for the estimation of Mineral Resources at Las Bambas. • The Ferrobamba, Chalcobamba and Sulfobamba block models utilised sub-blocking. Models were then regularised for use in mine planning purposes. • High erratic grade values were managed by upper grade capping based on statistical assessment evaluated for all variables and domains. Consideration was also given to the metal content above the top cap value.

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
	• All elements were estimated by lithology domains. At Ferrobamba five different orientation domains were identified in the skarn and were used in the interpolation. Copper grade-shell greater than 0.1% Cu by lithology were made. These were used together with lithology and oxidation domain models as constraints to the block models. • At Sulfobamba high-grade skarn shoots were identified and were used in the interpolation of copper only. The boundaries between the low and the high-grade skarn were treated as hard boundaries. • Data compositing for estimation was set to 4m, which matches two times the majority of drillhole sample lengths (2m), provides good definition across interpreted domains, and adequately accounts for bench height. • Variogram analysis was updated for Ferrobamba and Chalcobamba deposits while the Sulfobamba model was not updated. • No assumptions have been made about the correlation between variables. All variables are comparably informed and independently estimated. • Interpolation was undertaken in three to four passes. • Check estimates using Discrete Gaussian change of support modelling have been performed on all models. Block model results are comparable with previous Mineral Resources estimations after changes due to drilling and re-modelling by the site. • Assumptions about the recovery of by-products are accounted in the net-smelter return (NSR) calculation which includes the recovery of Mo, Ag and Au along with the standard payable terms. • Arsenic is considered a deleterious element and has been estimated. It is not considered a material risk. Sulphur, calcium and magnesium are also estimated to assist in the determination of NAF (non-acid forming), PAF (potentially acid forming) and acid neutralising material. • Block sizes for all three deposits were selected based on Quantitative Kriging Neighbourhood Analysis (QKNA). The Ferrobamba block size was 20m x 20m x 15m with sub-blocks of 5m x 5m x 5m. Chalcobamba block size was set to 25m x 25m x 15m, with sub-blocks of 5m x 5m x 5m. The block size at Sulfobamba was set to 50m x 50m x 15m (sub-blocked to 25m x 25m x 7.5m) which roughly equates to the drill spacing. The search anisotropy employed was based on both the ranges of the variograms and the drill spacing. All models were regularised to 20m x 20m x 15m for use in Ore Reserve estimates. • The selective mining unit is assumed to be approximately 20m x 20m x 15m (x,y,z) which equates to the Ferrobamba block model block size. • Block model validation was conducted by the following processes – no material issues were identified: • Visual inspections for true fit for all wireframes (to check for correct placement of blocks and sub-blocks). • Visual comparison of block model grades against composite sample grades.

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
	- Global statistical comparison of the estimated block model grades against the declustered composite statistics. - Change of support analysis was completed on major lithological domains and compared to the block estimates to measure the smoothing in each estimation domain. - Swath plots and drift plots were generated and checked for skarn and porphyry domains.
Moisture	- All tonnages are stated on a dry basis.
Cut-off parameters	- The Mineral Resources are reported above a range of cut-offs based on material type and ore body. The cut-off grades range from 0.16% Cu cut-off grade for hypogene material to 0.19% Cu for marble/calc-silicate hosted material and 0.16% Cu for breccia at Ferrobamba. Oxide material has been reported above a 1% Cu cut-off grade. The reported Mineral Resources have also been constrained within a US$4.04/lb Cu pit shell with revenue factor=1. - The reporting cut-off grade is in line with MMG's policy on reporting of Mineral Resources which considers current and future mining and processing costs and satisfies the requirement for prospects for future economic extraction.
Mining factors or assumptions	- Mining of the Las Bambas deposits is undertaken by open pit method, which is expected to continue throughout the life of mine. Large scale mining equipment including 300 tonne trucks and 100 tonne electric face shovels are used for material movement. - During block regularisation, internal dilution is included to produce full block estimates. - Further information on mining factors is provided in Section 4 of this table. - No other mining factors have been applied to the Mineral Resources.
Metallurgical factors or assumptions.	- Currently the processing of oxide copper mineralisation has not been studied to pre-feasibility or feasibility study level. The inclusion of oxide copper Mineral Resources assumes that processing of very similar ores at Tintaya was completed successfully in the past where a head grade of greater than 1.5% Cu was required for favourable economics. This assumption has been used at this stage for the oxide copper mineralisation. - Sulphide and partially oxidised material is included in the Mineral Resources which is expected to be converted to Ore Reserves and treated in the onsite concentrator facilities. - No other metallurgical factors have been applied to the Mineral Resources.
Environmental factors or assumptions	- Environmental factors are considered in the Las Bambas life of asset work, which is updated annually and includes provision for mine closure. - Geochemical characterisation undertaken in 2007, 2009, 2017 and 2021 indicate most of the waste rock from Ferrobamba and Chalcobamba deposits to be Non-Acid Forming (NAF) and that no acid rock drainage from the waste rock dumps from these two pits should be expected. Waste rock samples from Sulfobamba were found to contain higher concentrations of sulphur and that 30% to 40% of waste rock could be

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**

	Potentially Acid Forming (PAF). Suitable controls will be implemented for all PAF waste rock, including investigating opportunities for backfill into pit voids. Additional geochemical characterisation work is ongoing.
	• Tailings generated from processing of Ferrobamba and Chalcobamba were determined to be NAF. Geochemical characterisation of tailings generated from processing of Sulfobamba ores is currently under assessment, however for environmental assessment purposes it was assumed to have PAF behaviour. Current Life of Asset schedules have Ferrobamba tailings processing scheduled for approximately 3 years after Sulfobamba tailings are processed. A closure plan was submitted and approved by the regulator in 2016 and describes the encapsulation method for Sulfobamba tailings.
	• Further geochemical characterisation studies on waste rock and tailings samples are currently underway to support the Environmental Impact Study Modification.
	• On 13 July 2020, the environmental technical report was submitted to SENACE that included: Ferrobamba Phase 7A, drilling, processing facilities, truck shop relocation and ancillary components for Ferrobamba and Chalcobamba. This technical report was approved in October 2021 by the authority.
	• On October 17, 2021, another environmental technical report was submitted, which included Ferrobamba pit expansion (6A), relocation of conveyor belt #4, Chalcobamba pit expansion, Concentrator plant expansion to 152,250 tn/d, relocation of the tailings auxiliary dam and other components. The Environmental Technical report was approved by the authority on February 18-22.
	• Las Bambas is currently elaborating another environmental technical report, this report will include TSF Expansion to 67 Mtn, this report will be submitted to the authority in July-22.
	  ○ Las Bambas has started the process for the 4th modification to include: Ferrobamba Pit expansion, Chalcobamba Phase II, TSF 1 expansion, drilling and other components.
	  ○ In February 2019 the file for the authorisation to start activities for Chalcobamba was presented to MINEM, the approval of the AIA was planned for 31 July 2020. However, due to the current situation caused by the health crisis (COVID 19), and now government related issues, this permit was approved in March 2022.
	  ○ Based on the current TSF design and the design assumptions for dry settled density and beach angle, the TSF currently under construction at Las Bambas has a final capacity of 784Mt of tailings from processing 800Mt. In the next Environmental Certification TSF Expansion will be up to the 4200 Level

Bulk density	• Bulk density is determined using the Archimedes' principle (weight in air and weight in water method). Samples of 20cm in length are measured at a frequency of approximately one per core tray and based on geological domains. The density measurements are considered representative of each lithology domain. • Bulk density measurement occurs at the external, independent assay laboratory. The core is air dried and whole core is wax coated prior to bulk density determination to ensure that void spaces are accounted for. • Density values in the Mineral Resources models are estimated using Ordinary Kriging within the lithology domain shapes. Un-estimated blocks were assigned a density

<table>
<tr><th colspan="2">Section 3 Estimating and Reporting of Mineral Resources</th></tr>
<tr><th>Criteria</th><th>Commentary</th></tr>
<tr><td></td><td>value based on an expected value of un-mineralised rock within each geological domain.</td></tr>
<tr><td>Classification</td><td>

Mineral Resource classifications used criteria that required a certain minimum number of drillholes. The requirement of more than one drillhole ensures that any interpolated block was informed by sufficient spatially distributed samples to establish grade continuity. Furthermore, rock type specific hole spacing (skarn vs. porphyry) were used to classify each Mineral Resource category.
Drillhole spacing for classification were based on an internal Ferrobamba drillhole spacing study undertaken in 2015. Drill spacing currently applied for each category are:
<table>
<tr><th rowspan="2">Deposit</th><th rowspan="2">Ore Type</th><th colspan="3">Drill Spacing (m)</th></tr>
<tr><th>Measured</th><th>Indicated</th><th>Inferred</th></tr>
<tr><td rowspan="2">FB</td><td>Skarn</td><td>40x40</td><td>70x70</td><td>90x90</td></tr>
<tr><td>Porphyry</td><td>60x60</td><td>120x120</td><td>250x250</td></tr>
<tr><td rowspan="2">CB</td><td>Skarn</td><td>25x25</td><td>60x60</td><td>90x90</td></tr>
<tr><td>Porphyry</td><td>60x60</td><td>120x120</td><td>150x150</td></tr>
<tr><td rowspan="2">SB</td><td>Skarn</td><td>-</td><td>50X50</td><td>90x90</td></tr>
<tr><td>Porphyry</td><td>-</td><td>100X100</td><td>150x150</td></tr>
</table>

Measured and Indicated generally require at least three holes in the referred radius, while Inferred only two.

Only copper estimates were used for classification. Estimation confidence of deleterious elements such as arsenic was not considered for classification purposes.
The Mineral Resource classification applied appropriately reflects the Competent Person’s view of the deposit.

</td></tr>
<tr><td>Audits or reviews</td><td>

Historical models have all been subject to a series of internal and external reviews during their history of development. The recommendations of each review have been implemented at the next update of the relevant Mineral Resource estimates.
Several extensive reviews were undertaken as part of the MMG due diligence process for the purchase of Las Bambas. These reviews included work done by:

Runge Pincock Minarco (RPM), which resulted in the published Competent Person report in 2014.
AMC completed an independent audit of the 2017 block model during 2018. Minor recommendations were made towards the subsequent 2018 model update.
Significant review work was carried out by AMEC in 2019 on the 2018 model.
AMC completed an independent audit of the 2020 block model from Aug. to Nov. 2020. Minor recommendations were made, and most of them were raised.
No fatal flaws were detected in any of these reviews and all recommendations were considered and addressed in the further models.

A self-assessment of all 2022 Mineral Resource modelling was completed by the Competent Person using a standardised MMG template. No fatal flaws were detected. Areas previously identified for improvement have been addressed and include:

Mineral Resource classification for the Ferrobamba block model uses a wireframe shape to constrain the final Mineral Resource category.

</td></tr>
</table>

Section 3 Estimating and Reporting of Mineral Resources

Criteria	Commentary
	○ Sequential copper results are used to model an oxidation type domain. This is used to constrain the soluble copper in sulfuric acid, cyanide and the residual in the estimation process.

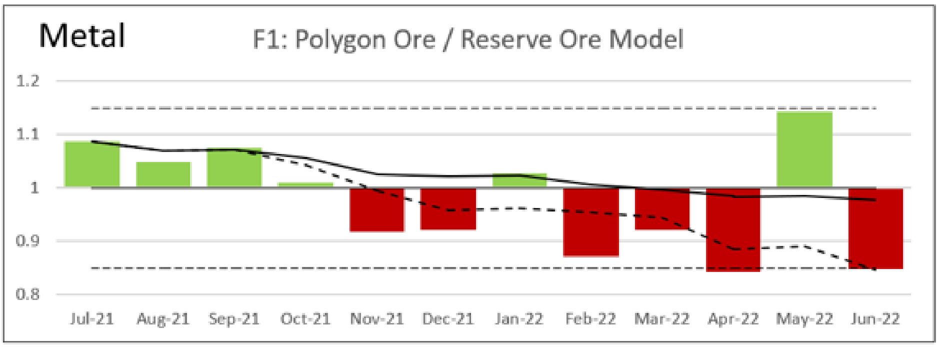
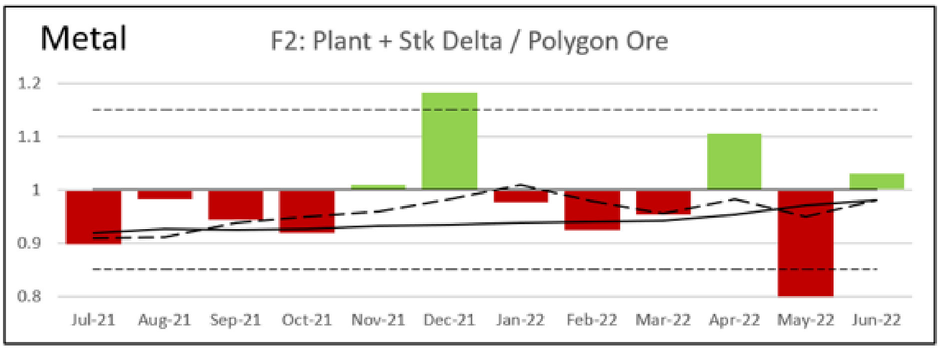
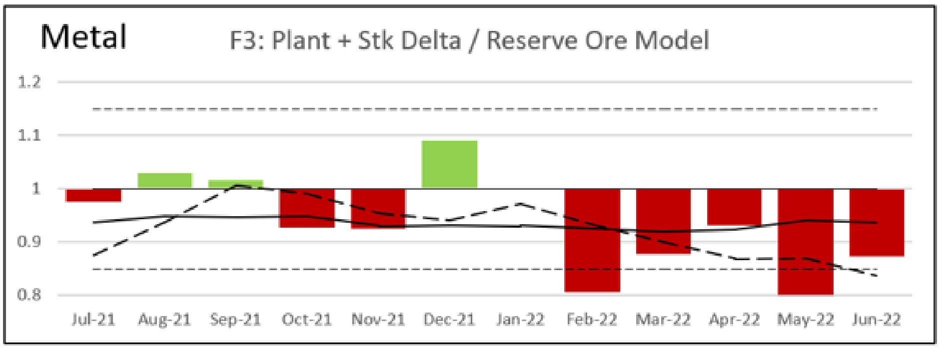
Discussion of relative accuracy / confidence

- There is high geological confidence of the spatial location, continuity and estimated grades of the modelled lithologies within the Mineral Resources. Minor, local variations are expected to occur on a sub-25m scale that is not detectable by the current drill spacing. Global declustered statistics of the composite databases on a domain basis were compared against the block model. Block model estimates were within 10% of the composite database. Local swath plots were undertaken for each deposit. All plots showed appropriate smoothing of composite samples with respect to estimated block grades.
- The Las Bambas Mineral Resource estimates are considered suitable for Ore Reserve estimation and mine design purposes. The Mineral Resources model was evaluated using the discrete Gaussian change of support method for copper in most domains. Based on the grade tonnage curves generated, the Mineral Resources model should be a reasonable predictor of tonnes and grade selected during mining.
- Reconciliation of the last 12 months of production indicates that the mine planning block model has over-called the ore control model (F1) by 2% for copper metal. This comprises a 2% over-call of grade and a 1% over-call of tonnage.

	Block Model	Factor	Grade	Tonnes	Metal
Year to June 2022	2022	F1	0.92	1.00	0.91
		F2	0.91	1.06	0.96
		F3	0.83	1.05	0.88
1 July 2021 to 30 June 2022	2022	F1	0.98	0.99	0.98
		F2	0.92	1.04	0.96
		F3	0.90	1.04	0.94
1 July 2020 to 30 June 2021	2022	F1	0.98	1.03	1.01
		F2	0.94	0.98	0.92
		F3	0.92	1.01	0.93
1 July 2019 to 30 June 2020	2022	F1	1.02	0.99	1.01
		F2	0.98	0.98	0.96
		F3	1.00	0.97	0.97
All (since commercial production start)	2022	F1	1.02	1.04	1.05
		F2	0.95	0.97	0.92
		F3	0.96	1.00	0.97

F1	Ore Control / Ore Reserve
F2	Mill / Ore Control
F3	Mill / Ore Reserve

- The F1 reconciliation indicates that the 2022 model has over-called metal by 9% for the year to June 2022, triggered by 8% overcalling of grade. Tonnage is accurately called during this period.
- The F3 (Mill / Reserve) reconciliation indicates that the Reserve model has over-called metal by 12% and under-called tonnes by 5% for the year to June 2022. The project to date reconciliation shows the Reserve has over-called metal production (F3) by 3% while the F1 metal of 5% under-call is consistent with prior years' models.

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
	- Further analysis using the F2 reconciliation factor (Mill / Grade Control) for the year ending June 2022 shows that metal is 4% lower, comprising 6% higher tonnes and 9% lower grade received by the mill than estimated by the mine. The F2 factor result indicates that ore loss and dilution are issues that need to be addressed. Both the F2 and F3 factors are affected by ore loss and dilution.    - The accuracy and confidence of the 2022 Mineral Resource estimates are considered suitable for use as an input to Ore Reserve estimation and public reporting by the Competent Person. MMG internal procedures for external 3rd party reviews are triggered upon a 10% variance (excluding depletion) year on year.

3.2.3 Statement of Compliance with JORC Code Reporting Criteria and Consent to Release

This Mineral Resources statement has been compiled in accordance with the guidelines defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("2012 JORC Code").

3.2.3.1 Competent Person Statement

I, Hugo Rios, confirm that I am the Competent Person for the Las Bambas Mineral Resources section of this Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having five years' experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Member of The Australasian Institute of Mining and Metallurgy and hold Chartered Professional accreditation in the field of Geology
- I have reviewed the relevant Las Bambas Mineral Resources section of this Report to which this Consent Statement applies.

I am a full-time employee of MMG Las Bambas at the time of the estimation.

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Las Bambas Mineral Resources section of this Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to the Las Bambas Mineral Resources.

3.2.3.2 Competent Person Consent

<u>Pursuant to the requirements Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)</u>

With respect to the sections of this report for which I am responsible – the Las Bambas Mineral Resources - I consent to the release of the 2022 Mineral Resources and Ore Reserves Statement as at 30 June 2022 Executive Summary and Technical Appendix Report and this Consent Statement by the directors of MMG Limited:

This signature was scanned for the exclusive use in this document – the *MMG Mineral Resources and Ore Reserves Statement as at 30 June 2022* – with the author's approval. Any other use is not authorised.

Hugo Rios MAusIMM(CP) (#311727)

Sept. 22, 2022

Date:

This signature was scanned for the exclusive use in this document – the *MMG Mineral Resources and Ore Reserves Statement as at 30 June 2022* – with the author's approval. Any other use is not authorised.

Signature of Witness:

Jorge Valverde
Lima, Peru

Witness Name and Residence: (e.g. town/suburb)

3.3 Ore Reserves – Las Bambas

3.3.1 Results

The 2022 Las Bambas Ore Reserves are summarised in Table 5. All data reported here is on a 100% asset basis. MMG’s attributable interest in Las Bambas is 62.5%.

Table 5 2022 Las Bambas Ore Reserves tonnage and grade (as at 30 June 2022)

Las Bambas Ore Reserves									
						Contained Metal			
Ferrobamba Primary Copper[1]	**Tonnes (Mt)**	**Copper (% Cu)**	**Silver (g/t Ag)**	**Gold (g/t Au)**	**Mo (ppm)**	**Copper (kt)**	**Silver (Moz)**	**Gold (Moz)**	**Mo (kt)**
Proved	340	0.65	2.9	0.05	200	2,200	32	0.60	69
Probable	130	0.91	4.6	0.08	180	1,100	19	0.33	23
Total	**470**	**0.72**	**3.4**	**0.06**	**200**	**3,400**	**51**	**0.92**	**92**
Chalcobamba Primary Copper[2]									
Proved	100	0.65	2.1	0.03	130	650	7	0.08	14
Probable	130	0.71	2.7	0.03	110	900	11	0.13	14
Total	**230**	**0.68**	**2.4**	**0.03**	**120**	**1,500**	**18**	**0.22**	**28**
Sulfobamba Primary Copper[3]									
Probable	54	0.80	5.9	0.03	160	440	10	0.05	9
Total	**54**	**0.80**	**5.9**	**0.03**	**160**	**440**	**10**	**0.05**	**9**
Sulphide Stockpiles									
Proved	30	0.38	2.2	-	130	110	2.1	-	3.9
Total	**30**	**0.38**	**2.2**	**-**	**130**	**110**	**2.1**	**-**	**3.9**
Total Contained Metal	**780**	**0.70**	**3.2**	**0.05**	**170**	**5,500**	**81**	**1.2**	**130**

1 0.20% to 0.26% Cu cut-off grade based on rock type and recovery
2 0.22% to 0.30% Cu cut-off grade based on rock type and recovery
3 0.25% to 0.30% Cu cut-off grade based on rock type and recovery
Figures are rounded according to JORC Code guidelines and may show apparent addition errors
Contained metal does not imply recoverable metal

- Ferrobamba Pit design has a major increase at central bottom due to a block model update on resource optimization, Geotechnical improvements allows a reduction in waste stripping in the north wall, and a reduction of low-grade ore in the south Zone due to annual cost increases.
- Block model information at Chalcobamba allows to increase pit design in central-south area.
- Sulfobamba ore reserve have been impacted by current underground artisanal mining.

3.3.2 Ore Reserves JORC 2012 Assessment and Reporting Criteria

The following information provided in Table 6 complies with the 2012 JORC Code requirements specified by "Table-1 Section 4" of the Code. Each of the items in this table has been summarised as the basis for the assessment of overall Ore Reserves risk in the table below, with each of the risks related to confidence and/or accuracy of the various inputs into the Ore Reserves qualitatively assessed.

Table 6 JORC 2012 Code Table 1 Assessment and Reporting Criteria for Las Bambas Ore Reserve 2022

<table>
<tr><th colspan="2">Section 4 Estimation and Reporting of Ore Reserves</th></tr>
<tr><th>Criteria</th><th>Commentary</th></tr>
<tr><td>Mineral Resource estimates for conversion to Ore Reserves</td><td>

- Mineral Resource block models have been updated by Resource Geology within Strategic Planning and reviewed by the Mineral Resource Competent Person. The block models contain descriptions for lithology, Mineral Resources classification, mineralisation, ore type, and other variables described in model release memorandums. The ore loss modifying factors have been incorporated in the block models via a variable. These block models were used for the pit optimisation purpose using corporately approved assumptions for cost and metal prices. GEOVIA Whittle was the software package used for this purpose.

<table>
<tr><th>MR block models</th><th>Ferrobamba</th><th>Chalcobamba</th><th>Sulfobamba</th></tr>
<tr><td>Previously Completed by</td><td>Helber Holguino/Hugo Rios</td><td>Helber Holguino/Hugo Rios</td><td>Helber Holguino/Andrew Fowler</td></tr>
<tr><td>Updated by</td><td>Paolo Petersen</td><td>Paolo Petersen</td><td>Paolo Petersen</td></tr>
<tr><td>Reviewed by</td><td>Hugo Rios</td><td>Hugo Rios</td><td>Hugo Rios</td></tr>
<tr><td>Memorandum date</td><td>01 May 2022</td><td>01 May 2022</td><td>01 May 2022</td></tr>
<tr><td>Block model file</td><td>lb_fe_mor_2204.bmf</td><td>lb_ch_mor_2204.bmf</td><td>lb_sb_1704_mor_v2.bmf</td></tr>
<tr><td>Block size (m)</td><td>20 x 20 x 15</td><td>20 x 20 x 15</td><td>20 x 20 x 15</td></tr>
<tr><td>Model rotation</td><td>35°</td><td>0°</td><td>0°</td></tr>
</table>

- The Measured and Indicated Mineral Resources quantities are inclusive and not additional to the Ore Reserves reported.

</td></tr>
<tr><td>Site visits</td><td>

- The Competent Person has undertaken numerous site visits to Las Bambas since commercial production commenced. Among other activities, the visits include discussions with relevant people associated with Ore Reserve modifying factors including Geology, Grade Control, Geotechnical, Mine Planning and Mining Operations, Metallurgy, Tailings and Waste Storage, and Environmental Areas. The outcomes from the visits have included reaching a common understanding in those areas, in addition to achieving other specific purposes of each trip. Site visits were also carried out by contributing experts listed in the expert input table at the end of this document.

</td></tr>
<tr><td>Study status</td><td>

- The Las Bambas Ore Reserve estimates were prepared based on Feasibility and Pre-Feasibility level studies that include the following:
  - Bechtel Feasibility Study 2010; and
  - TSF-1 PFS-A Design Report, Khlon Crippen Berger, 2021;
  - PFS-A Hydrogeology Study – TSF-1 Expansion, Flosolutions, 2021; and
  - PFS-A Report – Tailings, Ausenco, 2021.
- Additional work/studies include:
  - Glencore Mineral Resources and Ore Reserves Report 2013;
  - Audit of Las Bambas Ore Reserves 2013, by Mintec, Inc in October 2013;

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MMG Competent Person Report prepared by Runge Pincock Minarco (RPM), June 2014;
MMG Las Bambas cut-Off Grade Report 2022;
Rock Mass Model Update by Golder (2017);
Structural Geology Mode Update by JFSGC (2017);
Hydrogeology Model Update by Itasca (2018);
Geotechnical guidance by Piteau (2009-2010);
Update and validation of detailed slope engineering for waste dumps 1, Anddes Associates SAC, 2017;
Geotechnical work conducted by site personnel and Itasca, 2015 - 2017;
20190711_Memo Ferrobamba Geotechnical Design Guidance for 2019 (Produced by ITASCA 2019 and Las Bambas Geotechnical Personnel) ;
20200802_Geotechnical Design Guidance 2020 (produced by Las Bambas team;
Geotechnical Slope Design Guidance for Ferrobamba - Sulfobamba 2021;
Geotechnical Design Guidance - Chalcobamba 2021;
Geotechnical Slope Design Guidance 2022
Sulfobamba Metallurgy Testing, 2015;
Tailings Storage Facility – Initial review of options to extend filing life, ATCW, 2015;
Las Bambas 30 June 2020 Ore Reserve Audit

2022 Life of Mine (LoM) Reserve Case was produced as part of the MMG planning cycle demonstrates this is technically achievable and economically viable and that material Modifying Factors have been considered

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<td>Cut-off parameters</td>
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MMG Board approved metal prices for the cut-off calculation have been provided by MMG Group Finance in accordance with the MMG MROR Standard.
Costs were estimated based on information provided by the Las Bambas Finance Department.
The breakeven cut-off (BCoG) 2022 has been calculated with updated metal prices and costs and is applied to the copper grade. (Source: 2022 Las Bambas CoG Report).
Cut-off grade has been determined for each ore-type within each deposit:

Cut-off grades by ore-type for Ferrobamba:
<table>
<tr><th rowspan="2">COG Component</th><th colspan="6">Ferrobamba by Ore Type</th></tr>
<tr><th>FSSL</th><th>FSSM</th><th>FPSL</th><th>FPSM</th><th>FMSL</th><th>FBRE</th></tr>
<tr><td>BCOGinpit</td><td>0.20%</td><td>0.24%</td><td>0.20%</td><td>0.26%</td><td>0.24%</td><td>0.20%</td></tr>
</table>
Cut-off grades by ore-type for Chalcobamba:
<table>
<tr><th rowspan="2">COG Component</th><th colspan="7">Chalcobamba by Ore Type</th></tr>
<tr><th>CSSL</th><th>CSSM</th><th>CSML</th><th>CSMM</th><th>CPSL</th><th>CPSM</th><th>CBRE</th></tr>
<tr><td>BCOGinpit</td><td>0.22%</td><td>0.26%</td><td>0.22%</td><td>0.24%</td><td>0.22%</td><td>0.27%</td><td>0.30%</td></tr>
</table>
Cut-off grades by ore-type for Sulfobamba:
<table>
<tr><th rowspan="2">COG Component</th><th colspan="5">Sulfobamba by Ore Type</th></tr>
<tr><th>SSSL</th><th>SSSM</th><th>SPSL</th><th>SPSM</th><th>SBRE</th></tr>
<tr><td>BCOGinpit</td><td>0.25%</td><td>0.30%</td><td>0.25%</td><td>0.28%</td><td>0.26%</td></tr>
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<td>Mining factors or assumptions</td>
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The method of Ore Reserves estimation included pit optimisation, final pit and phase designs, consideration of mining schedule and all modifying factors. Additional information is provided in this section.

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- The mining method selected for the Las Bambas operation is open cut mining, which enables bulk mining of these large low to moderate grade mineral deposits that are outcropping to sub-cropping. Three deposits, Ferrobamba, Chalcobamba and Sulfobamba are each mined in separate open pits. Mining is by way of conventional truck and shovel operation. This method and selected mining equipment are appropriate for these deposits.
- An extension of Chalcobamba pit in the southwest sector (CBSW) is included in the reserve, after the completion of various assessments and studies, including mine planning, geological confirmation and hydrogeological, geotechnical and metallurgical studies. It also forms part of the Las Bambas permitting plan. .
- The geotechnical recommendations were provided by the Geotechnical & Hydrogeology team at Las Bambas in coordination with MLB Operational Excellence and Strategic Planning (OE&SP) and MMG Operational and Technical Excellence (OTE). These recommendations are based on recommended practices and studies performed by site personnel and Itasca trough (2020 to 2022) on Ferrobamba and by Ausenco (2020 to 2021) for Chalcobamba pit. The pits are sectored by structural domains and geotechnical sectors.
- Ferrobamba Design sectors were updated on 2022 based on the stability and sensitivity analysis for slope stability validation of FB Final phase performed by Itasca in 2022. Design parameters were divided in 5 sectors base in new laboratory, structural information and sensitivity analysis. Primary changes are on North and NE area. Analysis also provided updates on dewatering and slope performance targets to support the design implementation.
- Chalcobamba design parameters validated during 2021 remain without changes. Introduced increase on Bench Face Angles for design sectors CH-N, CH-E, CH-SE, CH-S2, CH-S1 and CH-SW (increase from 65° to 70° on upper level) were maintained, as structural and rock mass conditions on the sectors are favourable). No change to IRA was introduced
- Geotechnical slope design angles for 2022 are reported on the memorandum (Geotechnical Slope Design Guidance MLB 2022). The summary tables for slope design parameters, by pit, are presented below:

Geotechnical recommendations for Ferrobamba

Ferrobamba Geotechnical Design Parameters

Zone	Slope Orientation (Dipdir °)	Level (masl) From-to	Bench height (m)	Bench Face Angle (BFA)	Berm Width (m)	Interramp Angle (IRA°)	Interramp Height (m)	Decoupling berm width (m)
1	050 – 125	3720-4230	15	70	11.2	42	105	25
2	150 – 295	3380-4300	15	70	9	46	150	30
3	Above T6 Channel	*	15	70	11.2	42	105	30
	000 – 359	3285-4425	15		8.5	47	150	30
	080 – 095	3540-3720	30		17	47		30
4	125 – 305	3510-3870	30	70	12.5	52	150	30
5	045 – 305	3285-3870	30	70	12	53	150	30

Geotechnical recommendations for Chalcobamba:

Chalcobamba Geotechnical Design Parameters								
Zone	**Level (masl)**	**BFA**	**Bench Height (m)**	**Berm Width (m)**	**IRA (°)**	**Decoupling Height (m)**	**Ramp Width**	**Decouplin width (m)**
CH-S2	4330 - 4450	70	15	8	48,1	150	43	30
	4450 - 4540	70	15	9.5	45,0			
CH-SE	4255 - 4465	70	15	8	48,1	150	43	30
	4465 - 4555	70	15	9.5	45,0			
CH-E	4165 - 4435	70	15	8	48,1	150	43	30
	4435 - 4540	70	15	9.5	45,0			
CH-N	4165 - 4360	70	15	8	48,1	120	43	30
	4360 - 4465	70	15	9.5	45,0			
CH-NW	4165 - 4285	70	15	8	48,1	120	43	30
	4285 - 4375	65	15	8	45,0			
CH-W	4165 - 4330	70	15	8	48,1	120	43	30
	4330 - 4420	65	15	8	45,0			
CH-SW	4315 - 4435	70	15	8	48,1	150	43	30
	4435 - 4525	70	15	9.5	45,0			
CH-SW2	4225 - 4450	70	15	8	48,1	150	43	30
	4450 - 4555	70	15	9.5	45,0			
All	Quaternary (QT) & Overburden	65	10	10.2	34	n/a	n/a	n/a

Geotechnical recommendations for Sulfobamba

Ore reserve sectors	**Levels**	**Bench Height (m)**	**Bench Face Angle (BFA º)**	**Berm width (m)**	**Interamp Angle (IRA º)**	**Interamp / stack height (m)**	**Decoupling Berm width (m)**
SU-N	4460 – 4310mRL	15	65	8	45	150	30
SU-NE	4420 – 4345mRL	15	65	8	45	150	30
	In fresh rock	15	70	8	48.1		
SU-E	4565 – 4445mRL	15	65	8	45	150	30
	In fresh rock	15	70	8	48.1		
SU-S	4565 - 4475mRL	15	65	8	45	150	30
	In fresh rock	15	70	8	48.1		
SU-W	4565 – 4505mRL	15	65	8	45	150	30
	In fresh rock	15	70	8	48.1		

- A program of additional geotechnical drilling and data collection is currently being implemented for 2022 for Ferrobamba with the aim to maintain geotechnical model updated as mining progresses. At Chalcobamba a drill program of two years 2021-2022 is in development to improve confidence in the slope design guidance of the deposit and to incorporate additional information on new pit extension identified by exploration, the bulk of the findings from the data collection and analysis will be available for inclusion in the 2023 Ore Reserve slope design guidance.
- The 2022 Mineral Resources models for Ferrobamba and Chalcobamba, which incorporated the additional ore loss variable, have been used for the updated 2022 Ore Reserves. The Mineral Resources model for Sulfobamba remained the same as

2019 except for an update of the ore loss variable and incorporation of ore loss due to the artisanal mining. All models were regularised to 20m x 20m x 15m.

- The pit optimisation was developed for the three open pits based on the 2022 Mineral Resource block models. The strategy for the final pit selection was based on the NPV by pit shell at revenue factor (RF) 1. Final pit designs that incorporate more practical mining considerations were carried out using those optimisation shells.
- Dilution has been accounted for in the regularised block model used for the Ore Reserves estimate. In addition, the ore loss block model variable has been populated with the following modifying factors:
    - 3% ore loss for all ore types for all pits.
    - An additional 2% ore loss for Ferrobamba Phase 03 which is the main ore source for 2022 and 2023.

  This is supported by the reconciliation results.

- The reconciliation results summarised in the Mineral Resource section

	Block Model	Factor	Grade	Tonnes	Metal
Year to June 2022	2022	F1	0.92	1.00	0.91
		F2	0.91	1.06	0.96
		F3	0.83	1.05	0.88
1 July 2021 to 30 June 2022	2022	F1	0.98	0.99	0.98
		F2	0.92	1.04	0.96
		F3	0.90	1.04	0.94
1 July 2020 to 30 June 2021	2022	F1	0.98	1.03	1.01
		F2	0.94	0.98	0.92
		F3	0.92	1.01	0.93
1 July 2019 to 30 June 2020	2022	F1	1.02	0.99	1.01
		F2	0.98	0.98	0.96
		F3	0.99	0.97	0.97
All (since commercial production start)	2022	F1	1.01	1.04	1.05
		F2	0.95	0.97	0.92
		F3	0.96	1.00	0.97

F1	Ore Control / Ore Reserve
F2	Mill / Ore Control
F3	Mill / Ore Reserve

- In early June 2019, Las Bambas convened technical stakeholders to develop and agree to a scheme to apply a modifying mining factor to support construction of mine plans more closely aligned with reconciliation outcomes. These modifying factors were introduced to the Resources Models under the additional ore loss variable.
- A program to address these issues was set and significant progresses have been made in the areas of resource estimation, grade control practices, blasting practices/designs, monitoring blast movement, accurate positioning of shovels, better design of ore polygons and other remediations. The continuous improvement program is still on going.
- 2022 model shows a significant improvement in terms of global tonnage and grade variability, though it might still present some local variations caused by uncertainty in geological contacts which could affect the high and low grade proportion assessment, notwithstanding that these variations are inside the expected range for Measured and Indicated.

	• 2022 reconciliation results support the continuing application of the ore loss factors as outlined above. The Competent Person considers this to be appropriate for the 2022 Ore Reserve estimation based on the current information. • After an internal review that was carried out in 2019 on reconciliation, involving all the key areas including: geological modelling, ore control, operations, mine planning, and operational excellence, differences were explained, and now monthly meetings are held to address issues encountered. • A Midterm model was introduced to inform the ore control process, among other initiatives, including now a cross-functional committee to optimize F2 performance. • Additional studies for mining dilution and recovery will be undertaken when more reconciliation data is available, and the current improvement programs are implemented in the mining operation. • In the pit, the minimum mining width is 70m; the Selective Mining Unit (SMU) has been set at 20m x 20m x 15m. • Inferred Mineral Resource material has not been included in the pit optimisation or in the Ore Reserves estimates. • The main mining infrastructure includes crusher, overland conveyor, tailings and waste storage facilities, stockpiles, roadways/ramps, workshops and so forth. • All infrastructure requirements are established for Ferrobamba. Further capital investment is required for infrastructure to support the needs of Chalcobamba and Sulfobamba. • The required infrastructure for Chalcobamba pit has been identified and included in the current and approved Environment Impact Assessment (EIA), with 50% of the north waste dump not located within the property boundary. Another location that is fully within the property boundary has been identified and used in the LoA planning; however, it is yet to be evaluated by environmental, legal and exploration teams. In the 3rd EIA amendment, approval drilling for studies has been included and the 4th EIA amendment will include principal components for Chalcobamba (crushing and conveyor), with waste dump fully within the property boundary. • The planned Sulfobamba infrastructure has been identified within the Las Bambas mining concession, however, the infrastructure and deposit are not located within the area of MMG land ownership.
Metallurgical factors or assumptions	• Metallurgical copper concentration process comprises the following activities: crushing, grinding and flotation, producing copper and molybdenum concentrates. Copper concentrates contain gold and silver as by-products. Las Bambas Project commenced commercial production on 1 July 2016. • Extensive comminution and flotation test work has been conducted and metallurgical recoveries determined for different rock types and different mining areas. • Bulk samples and pilot-scale tests have been conducted on representative samples of the deposits. For the Ferrobamba deposit, nearly all the tests were completed by G&T laboratory in Canada as part of Feasibility Study, though additional confirmatory tests were included from more recent testing by ALS in Peru. For Chalcobamba, all the tests were completed by G&T and reported in the Feasibility Study. For Sulfobamba, the data analysed were those from testing at G&T in 2015. Metallurgical test work continues as ore body knowledge increases. • Arsenic minerals identified in the orebody are being mapped and monitored in the mining process. The level of arsenic in Las Bambas concentrates remains low by market

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<p>standards, and concentrate quality continues to be very acceptable for processing by smelters internationally.</p>

The recovery equations have been provided by the Metallurgical Group at Las Bambas in coordination with MMG Operations and Technical Excellence.
The equations were generated based on metallurgical test work, from diamond drilling sample data in each pit. It should be noted that the copper recovery is a function of the ratio of acid soluble copper (CuAS) to total copper (Cu), which is a determining factor for the recovery. The copper recovery is determined by the following equations.All assumptions are validated annually with plant performance data.
<p><i>Ferrobamba:</i>
For all the materials except marble:
$Cu\ Recovery\ (\%) = (96.0-94.0*(CuAS/Cu) + 1.6$
For marble:
$Cu\ Recovery\ (\%) = (96.0-94.0*(CuAS/Cu) -13 + 1.6$
<i>Chalcobamba:</i>
$Cu\ Recovery\ (\%) = 94.4-90.0*(CuAS/Cu) + 1.6$
<i>Sulfobamba:</i>
$Cu\ Recovery\ (\%) = 89.2 - 80.4*(CuAS/Cu) + 1.6$
An improvement in recovery of 1.6% has been added to account for ongoing metallurgical improvement work since the start of operation.</p>

The recovery of Mo, Ag, Au, has been provided by Metallurgical Group at Las Bambas.
<table>
<tr><th colspan="2">Metal</th><th>Ferrobamba</th><th>Chalcobamba</th><th>Sulfobamba</th></tr>
<tr><td>Mo</td><td>%</td><td>55.5</td><td>55.5</td><td>55.5</td></tr>
<tr><td>Ag</td><td>%</td><td>75.0</td><td>75.0</td><td>75.0</td></tr>
<tr><td>Au</td><td>%</td><td>71.0</td><td>71.0</td><td>71.0</td></tr>
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Benchmarking of data from four other mines in South America has been completed and the recovery algorithms that describe performance at these mines compared with those used for the three Las Bambas deposits. The four other mines were Tintaya, Toquepala, Cerro Verde and Antamina.

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<td>Environmental and Legal Permits</td>
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The Environmental Impact Study for the Las Bambas Project was approved on 7 March 2011 by the Peruvian Government with directorial resolution Nº073-2011-MEM/AAM.
The construction of the project processing facilities, including the Tailings Storage Facility at Las Bambas was approved 31 May 2012 by the General Directorate of Mining through Resolution N°178-2012-MEM-DGM/V.
The Mine Closure Plan for the Las Bambas Project was approved 11 June 2013 through Directorial Resolution N°187-2013-MEM-AAM. As per the Peruvian regulatory requirements, an update of the Mine Closure Plan was approved 28 September 2016, through Directorial Resolution N°288-2016-MEM-DGAAM.
A first amendment to the Environmental Impact Study was approved 14 August 2013 through Directorial Resolution N°305-2013-MEM-AAM, whereby amendments to the Capacity of the Chuspiri water reservoir and changes to the environmental monitoring program were approved.
On 26 August 2013 the relocation of the molybdenum circuit (molybdenum plant, filter plant and concentrate storage shed) from the Antapaccay region to the Las Bambas project area was approved by the environmental regulator through Directorial Resolution Nº319-2013-MEM-AAM, after assessment of the technical report showed that the environmental impacts of the proposed changes were not significant.

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	• On 6 November 2013, through Directorial Resolution N°419-2013-MEM-DGM/V, the General Directorate of Mining approved the amendment of the construction permit for the processing facilities to allow the construction of the molybdenum circuit at the Las Bambas project area. • Minor changes to the project layout were approved 13 February 2014 through Directorial Resolution N°078-2014-MEM-DGAAM and 26 February 2015, through Directorial Resolution N°113-2015-MEM-DGAAM. • On 17 November 2014, the second modification of the Study of Environmental Impact was approved with Directorial Resolution Nº 559-2014-EM/DGAAM, whereby changes to the water management infrastructure and changes in the transport system from concentrate slurry pipeline to bimodal transport (by truck and train) were approved. • A second amendment to the construction permit for processing facilities was approved on 28 April 2015 through Directorial Resolution RD169-2015-MEM-DGM/V to allow changes to the design of the tailings storage facility and changes to the water management system and auxiliary infrastructure. • Environmental approval for minor changes to project layout was approved 1 June 2016 through Directorial Resolution N°177-2016-MEM-DGAAM. • On 6 October 2018, the third amendment to the Environmental Impact Study was approved through Directorial Resolution 00016-2018-SENACE-PE-DEAR, to allow changes to the molybdenum plant, included haul road Ferrobamba to Chalcobamba, impacts and measure management in public transport, other ancillary infrastructure and changes to the environmental management plan. • Environmental changes to include the third ball mill and drilling at Jatun Charqui and others were approved on 11 February 2019 through Directorial Resolution N°00030-2019-SENACE-PE-DEAR. • The permit to discharge treated water to Ferrobamba River was approved on 16 April 2019 through Directorial Resolution N°057-2019-ANA-DCERH. • On 13 July 2020, the environmental technical report was submitted to SENACE that included: Ferrobamba Phase 7A, drilling, processing facilities, truck shop relocation and ancillary components for Ferrobamba and Chalcobamba. This technical report has been approval on 16th October 2020. • On 18th February 2022, the environmental technical report was approved that includes: Ferrobamba Phase 6A, Chalcobamba SW, increased concentrator plant throughput capacity by 5% (from 145,000 to 152,230 tpd.), relocation of overland conveyor (#4) and other components. • Las Bambas has started the process for the 4th modification of EIA to include: Ferrobamba Pit expansion (Phase 6 and 8), TSF 1 expansion (4200 level), drilling, conveyor relocation, selenium treatment plant, water management, new alternative concentrate transport routes and other components. • In February 2019 the file for the authorisation to start activities for the Chalcobamba pit was presented to MINEM, however, due to the current situation caused by the health crisis (COVID 19) and multiple changes to government, the approval of this permit was delayed until 8th March 2022. Las Bambas has worked in conjunction with the Peru Government to achieve such approval. • Geochemical characterisation studies on waste rock samples were conducted in 2007 and 2009/2010 as part of the Feasibility and Environmental Impact Studies, conclusions from these studies indicate that it should be expected that less than 2%

	of the waste rock from the Ferrobamba and Chalcobamba pits should be Potentially Acid Forming (PAF). No acid rock drainage from the waste rock dumps from these two pits should be expected. Waste rock samples from Sulfobamba were found to contain a higher concentration of sulphur and that 30% to 40% of waste rock could be PAF. • Further geochemical characterisation studies on waste rock and tailings samples are currently underway to support the Environmental Impact Study Modification. • The operation of the Ferrobamba waste rock dump was approved on 29th September 2015 by the General Directorate of Mining through Directorial Resolution N°1780-2015-MEM/DGM. • The Completion of the works for the construction of the Tailings Deposit Dam at an elevation of 4,065 was approved and its operation has been authorised (Resolución No. 060-2019-MEM-DGM/V). • Mining Technical Report was approved for the modification of the mining plan, Ferrobamba Pit expansion, Ferrobamba waste dump and low-grade ore pile (Resolución Directoral No 0081-2021- MINEM-DGM/V). • Approval of the start of activities of the Chalcobamba pit (Resolución Directoral No. 0182-2022- MINEM-DGM) in March 2022. • Currently, Las Bambas has four water use licenses: • License for underground water obtained with Directorial Resolution 0519-2015-ANA / AAA.XI.PA, for a volume up to 9,460.800 m3 / year. • License for non-contact water obtained with Directorial Resolution 0518-2015-ANA / AAA.XI.PA, for a volume up to 933.993 m3 / year. • License for contact water obtained with Directorial Resolution 0520-2015-ANA / AAA.XI.PA, for a volume up to 4,730,400 m3 / year. License for contact water obtained with Directorial Resolution 0957-2016-ANA / AAA.XI.PA, for a volume up to 4,730,400 m3 / year. • License for fresh water obtained with Directorial Resolution 0778-2016-ANA / AAA.XI.PA, for a volume up to 23,501,664 m3 / year.
Infrastructure	Las Bambas has the following infrastructure established on site: • Concentrator currently in operation. • Based on the current TSF design and the design assumptions for dry settled density and beach angle, the TSF currently under construction at Las Bambas has a final capacity of 784Mt of tailings from processing 800Mt. Four studies have been conducted looking at increasing tailings storage capacity at Las Bambas: o Tailings characterization test work to assess final settled density and beach slope in current TSF. o FS for TSF stage 6plus @4160masl for permits purposes. o Options assessment to increase capacity at TSF currently under construction. o Additional Tailings Storage Prefeasibility A, which includes TSF1 expansion up to RL 4230 masl. • Camp accommodation for staff • Water supply is sufficient for site and processing, sourced from the following: rainfall and runoff into Chuspiri dam, groundwater wells, contact waters, recirculating water in the process plant, pump station from Challhuahuacho River off-take structure.

	• Transport of the copper concentrate is performed by trucks, covering 380km, to the Imata Village, then it is transported by train, covering 330km, up to Matarani Port in Arequipa region. Transport of the molybdenum concentrate is being performed by trucks from Las Bambas site to Matarani Port, covering 710Km. This method is also used temporarily for some of the copper concentrate. • There are principal access roads that connect Las Bambas and national routes, Cotabambas to Cusco and Cotabambas to Arequipa. • High voltage electrical power is sourced from the national grid Cotaruse – Las Bambas, with a capacity of 220kV. • The majority of staff working at the operation are from the region immediately surrounding the project. • Technical personnel are mostly sourced from within Peru. The operation has a limited number of expatriate workers. Additional support is provided by Las Bambas office in Lima and MMG Melbourne Head Office personnel. • Chalcobamba pit operation requires additional purchase of land to the North side of the lease (Waste dump 2). However, an alternative location is being evaluated that does not require land purchase; this is what the LoA planning is based on currently. Sulfobamba pit operation requires additional purchase of land for the pit and other infrastructure. • Ferrobamba pit expansion requires additional purchase of land to the North side, because this expansion impacts Antuyo hamlet.
Costs	• Las Bambas Project commenced commercial production on 1 July 2016; future additional capital costs such as TSF 01 expansion are mainly based on pre-feasibility studies, considering additional information now available during four years of operation. The operating costs used for Ore Reserves estimation are based on the 2022 Budget (2022-2024) and 2021 Asset Business Plan (ABP) (2025 onwards) as per Corporate (MMG) guidelines and other considerations. Specifically: ○ Average costs are calculated by using the first 3 year's budget plus remaining ABP estimated costs year by year; ○ Necessary adjustments required for the input prices and consumption rates, updated during the budget process, are made to establish the connection between the budget and ABP; and ○ Approved cost savings from identified initiatives and improvements to be delivered over the life of mine are incorporated. • No deleterious elements are expected in the concentrates that would result in smelter penalties. • Metal prices and exchange rates are the same as those reported in the section for cut-off grade parameters. These Board approved prices and rates are provided by MMG Corporate and are based on external company broker consensus and internal MMG strategy. • Transportation charges are based on quotations from local companies. • Treatment and refining charges (TC/RC's) are based on marketing actuals and projections. Royalties payable are based on information provided by the Finance and Commercial Group at Las Bambas. • Sustaining capital costs, together with mining costs and processing costs have been included in the pit optimisation. The sustaining capital costs are principally related to TSF construction and equipment replacement. The inclusion or exclusion of these

	costs in the Ore Reserves estimation process has been done following MMG guidelines according to the objective of each capital expenditure in the operation.
Revenue factors	• All mining input parameters are based on the Ore Reserves estimate ABP Reserve Case production schedule. All cost inputs are based on tenders and estimates from contracts in place, as with net smelter returns (NSR) and freight charges. These costs are comparable with the regional averages. • The gold and silver revenue is via a refinery credit. • TC/RC's have been included in the revenue calculation for the project.
Market assessment	• MMG considers that the outlook for the copper price over the medium and longer term is positive, supported by further steady demand growth and supply constraints. • Global copper consumption growth will continue to be underpinned by rising consumption in China and the developing countries in Asia. These nations invest in infrastructure such as power grids, commercial and residential property, motor vehicles and transportation networks and consumer appliances such as air conditioners. • Global copper demand will also rise as efforts are made to reduce greenhouse gas emissions worldwide through increased adoption of renewable energy sources for electricity generation and electric vehicles for transportation. • Supply growth is expected to be constrained by a lack of new mining projects ready for development and the requirement for significant investment to maintain existing production levels at some operations. • Las Bambas has Life of Mine agreements in place with MMG South America and CITIC covering 100% of copper concentrate production which is sold to these parties at arms' length international terms. These agreements ensure ongoing sales of Las Bambas concentrate.
Economic	• The costs are based on the 2021 ABP Reserve Case projections which are based on actual costs and 2021 Budget information. • The financial model of the Ore Reserves mine plan shows that the mine has a substantially positive NPV. The discount rate is in line with MMG's corporate economic assumptions. • Various sensitivity analyses on the key input assumptions were undertaken during mine optimisations and financial modelling. All produce robust positive NPVs.
Social	• Las Bambas project is located in the Apurimac region that has a population of approximately 456,000 inhabitants (Census 2014). The region has a university located in the city of Abancay, with mining programs that provide professionals to the operation. The project straddles two provinces of the Apurimac region, Grau and Cotabambas. • Las Bambas Project contributes to a fund - "FOSBAM" - that promotes activities for the sustainable development of the disadvantaged population within the project's area of influence, comprising the provinces Grau and Cotabambas – Apurimac. • Las Bambas Project and the local community entered into an agreement for the resettlement of the rural community of Fuerabamba, Convenio Marco. The construction of the township of Nuevo Fuerabamba was completed in 2014 and the resettlement of all community families were completed in 2016. Currently, in joint work

	with the community, MMG are executing the commitments described in the framework agreement - Convenio Marco. • During the extraordinary general meeting in January 2010, Fuerabamba community approved the agreements contained in the so-called "compendium of negotiating resettlement agreements between the central negotiating committee of the community of the same name and representatives of Las Bambas mining project" that considers 13 thematic areas. • Las Bambas Project provides important support to the community in the areas of agriculture, livestock and health, education, and other social projects, which is well received. • Las Bambas has had periodic social conflict with communities along the public road used for concentrate transport and logistics. In response to these concerns Las Bambas has promoted a dialogue process in which the government, civil society and communities along the road participate. Besides, Las Bambas is also working to systematically improve the road conditions and reduce the impacts, while also maximising the social development opportunities available to these communities. • Las Bambas, for social management, complies with the national regulations of Peru and applies the corporate standards of MMG and ICMM. • The health emergency generated by COVID-19 has impacted the management of relations with communities, causing difficulties in accessing activities such as meetings, monitoring and compliance with commitments, among others. • Social conflicts have occurred due to invasions to Las Bambas property; however, Las Bambas is currently in a dialogue process with six communities (Pumamarca, Huancuire, Fuerabamba, Huancuire, Chila and Choaquere).
Other	• Las Bambas owns 7,781ha of land within the mining project. • The mining concession totals an area of 35,000 hectares, which includes the area containing the three mineral deposits and their corresponding infrastructures. According to Directorial Resolution N°187-2013-MEM-DGM/V, dated May 2nd, 2013, the Pit Mining Plan and the waste dump was approved for the Las Bambas project. • Approval for the exploitation of the Ferrobamba pit was granted on 30th September 2015 through Directorial Resolution N° 1780-2015-MEM/DGM. • The title for the Beneficiation Concession and approval for the operation of the concentrator plant was granted on 30th November 2015, through Directorial Resolution N° 2536-2015-MEM/DGM. • It is reasonable to expect that the future land acquisition and community issues will be materially resolved, and government approvals will be granted.
Classification	• The classification of Ore Reserves is based on the requirements set out in the JORC code 2012, based on the classification of Mineral Resources and the cut-off grade. The material classified as Measured and Indicated Mineral Resources within the final pits and is above the breakeven cut-off (BCoG Cu%) grade is classified as Proved and Probable Ore Reserves, respectively. • The Competent Person considers this appropriate for the Las Bambas Ore Reserves estimate. • No Probable Ore Reserves have been derived from Measured Mineral Resources.

Audit or Reviews	• The 2014 Ore Reserves were reviewed by Runge Pinock Minarco for the MMG Competent Person's Report as part of the MMG due diligence process. • An external third-party audit was undertaken in 2018 on the 2017 Ore Reserve by AMC Consultants Pty Ltd. The audit concluded that the 30 June 2017 Ore Reserve was prepared to an acceptable standard at the time it was completed. The recommendations of the review have been implemented since the completion of the 2019 Ore Reserve. • AMC Consultants Pty Ltd completed the second external review on the 2020 Ore Reserve in 2021 and no material issues were found. • The 2021 Ore Reserve estimates have been reviewed and validated by Javier E Ponce, Las Bambas Long Term Planning Superintendent.
Discussion of relative accuracy/ confidence	• The principal factors that can affect the confidence on the Ore Reserves are: ○ Proved Ore Reserves are considered to have a relative accuracy of +/- 15% with 90% confidence level over a volume equivalent to 3 months of production while Probable Ore Reserves are considered to have a relative accuracy of +/- 15% with 90% confidence over a volume equivalent to 12 months of production. ○ Geotechnical risk related to slope stability (due to uncertainties in the geo-mechanical domains/hydrology models) or excessive rock mass blast damage that could increase the mining rate. ○ Metallurgical recovery model uncertainty due to operational variability. In the best-case scenario, this would represent variability of +/- 2% and in the worst scenario +/- 5% to metal recovery. ○ Increases in rising operating costs for mining and processing. ○ Increase in selling cost due to the transportation (truck and rail) cost increases. ○ Capital costs variation for the new or expansion of current TSF. Also land acquisition and/permitting delays for additional TSF needs. The social-political context impacts the schedule of the approvals of studies and requires good relationship with the communities and an ongoing requirement for investment in delivering on social commitments. ○ Future changes in environmental legislation could be more demanding. ○ Current artisanal mining activities at Sulfobamba targeting high -grade mineralisation above the water table and social access may impact the timing of mining this pit due to delay in obtaining permitting and securing surface rights. It is recognised that the cost of accessing this resource will need to account for some form of economic resettlement for those community members engaged in the artisanal mining activities. An assessment has been conducted of the ore extracted by artisanal mining since it started in 2010 to June 30th, 2022, as a result it is estimated that 1.1Mt of ore with an assumed grade of 2.0% have been extracted and are accounted as a loss to the Ore Reserve.

3.3.3 Expert Input Table

A number of persons have contributed key inputs to the Ore Reserves determination. These are listed below in Table 7.

In compiling the Ore Reserves the Competent Person has reviewed the supplied information for reasonableness but has relied on this advice and information to be correct.

Table 7 Contributing experts – Las Bambas Ore Reserves

EXPERT PERSON / COMPANY	AREA OF EXPERTISE
Hugo Rios, Resource Geology Superintendent, MMG Ltd (Lima) Rex Berthelsen, Head of Geology, MMG Ltd (Melbourne)	Mineral Resource models
Erika Torres, Principal Metallurgist, MMG Ltd (Lima) Amy Lamb, Head of Processing, MMG Ltd (Melbourne)	Updated processing parameters and production record
Maximiliano Adrove, Principal Geotechnical, MMG Ltd (Lima)	Geotechnical parameters
Jeff Price, Head of Geotech, MMG Ltd (Melbourne)	
José Calle, Superintendent Long Term Planning/Studies, MMG Ltd (Lima)	Cut-off grade calculations Whittle/MineSight optimisation and pit designs
Jaime Trillo, Technical Services Manager, MMG Ltd (Las Bambas)	Production reconciliation
Olimpia Cabrera (Senior Study Specialist), Erik Medina (Principal Tailings), MMG Ltd (Lima),	Tailings Management
Giovanna Huaney, Environmental Permitting Lead, MMG Ltd (Lima)	Environmental/Social/Permitting
Oscar Zamalloa, Business Evaluation Lead, MMG Ltd (Lima)	Economics Assumptions
Hong Yu, Head of Marketing, MMG Ltd (Beijing)	Marketing

3.3.4 Statement of Compliance with JORC Code Reporting Criteria and Consent to Release

This Ore Reserve statement has been compiled in accordance with the guidelines defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("2012 JORC Code").

3.3.4.1 Competent Person Statement

I, Jorge Valverde, confirm that I am the Competent Person for the Las Bambas Ore Reserve section of this Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having five years' experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Member of The Australasian Institute of Mining and Metallurgy and hold Chartered Professional accreditation in the field of Mining.
- I have reviewed the relevant Las Bambas Ore Reserve section of this Report to which this Consent Statement applies.

I am a full-time employee of MMG Ltd. at the time of the estimation.

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Las Bambas Ore Reserve section of this Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to the Las Bambas Ore Reserves.

3.3.4.2 Competent Person Consent

Pursuant to the requirements Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

With respect to the sections of this report for which I am responsible – the Las Bambas Ore Reserves - I consent to the release of the 2022 Mineral Resources and Ore Reserves Statement as at 30 June 2022 Executive Summary and Technical Appendix Report and this Consent Statement by the directors of MMG Limited:

This signature was scanned for the exclusive use in this document – the *MMG Mineral Resource and Ore Reserve Statement as at 30 June 2022*– with the author's approval. Any other use is not authorised.

Jorge Valverde MAusIMM(CP)(#3053152)

30/07/2022

Date:

This signature was scanned for the exclusive use in this document – the *MMG Mineral Resource and Ore Reserve Statement as at 30 June 2022* – with the author's approval. Any other use is not authorised.

Signature of Witness:

Yao Wu,
Melbourne, Australia

Witness Name and Residence: (e.g. town/suburb)

4 KINSEVERE OPERATION

4.1 Introduction and setting

Kinsevere is located in the Haut-Katanga Province, in the southeast of the Democratic Republic of Congo (DRC). It is situated approximately 27 kilometres north of the provincial capital, Lubumbashi (Figure 4 1), at latitude S 11° 21′ 30″ and longitude E 27° 34′ 00″.

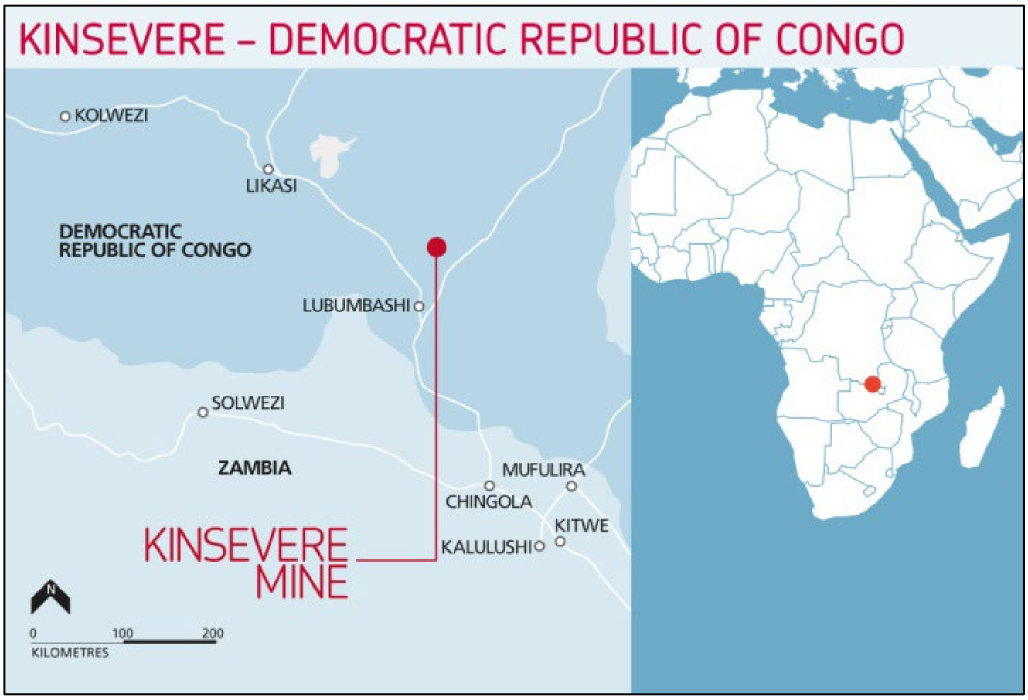


Figure 4-1 Kinsevere Mine location

Kinsevere is a conventional truck and excavator operation with atmospheric leaching of the oxide ore using a solvent extraction electro-winning (SX-EW) plant. The mine was started in 2006 using heavy media separation (HMS) and an electric arc furnace operation. The electric arc furnace was put on care and maintenance in 2008 with HMS then producing a direct shipping ore product grading 25% copper. The HMS was decommissioned in June 2011 when the Stage II SXEW plant was commissioned.

4.1.1 Results

The 2022 Kinsevere Mineral Resources are summarised in Table 8. The Kinsevere Mineral Resources are inclusive of the Ore Reserves.

The reporting cut-off grade applied to the model is 0.5% acid soluble copper (CuAS%) for the oxide Mineral Resource, 0.6% total copper (Cu%) for the transitional mixed (TMO) Mineral Resource and 0.6% total copper (Cu%) for the primary sulphide Mineral Resource. The TMO material is defined as having a Ratio (CuAS%/Cu%) greater than or equal to 0.2 and less than 0.5. The Kinsevere Cobalt Oxide-Transitional Mixed Ore (TMO), Resource cut-off is 0.2% Co% and 0.1% Co cut-off for the Primary Cobalt with acid soluble ratio below 0.2.

Table 8 2022 Kinsevere Mineral Resource tonnage and grade (as at 30 June 2022)

Kinsevere Mineral Resource

					Contained Metal		
Oxide Copper[2]	**Tonnes (Mt)**	**Copper (% Cu)**	**Copper (AS % Cu)**	**Cobalt (% Co)**	**Copper ('000)**	**Copper AS ('000)**	**Cobalt ('000)**
Measured	2.6	2.9	2.4	0.08	77	63	2.2
Indicated	4.4	2.6	2.1	0.12	110	92	5.0
Inferred	2.0	2.0	1.6	0.09	40	32	1.9
Total	**9.0**	**2.6**	**2.1**	**0.10**	**230**	**190**	**9.1**
Transition Mixed Ore (TMO) Copper[3]							
Measured	1.0	2.2	0.76	0.16	22	8	1.6
Indicated	2.5	2.0	0.64	0.12	48	16	2.8
Inferred	1.3	1.7	0.54	0.08	22	7	1.1
Total	**4.8**	**1.9**	**0.64**	**0.12**	**93**	**31**	**5.5**
Primary Copper[4]							
Measured	2.2	2.5	0.23	0.23	56	5	5.0
Indicated	18	2.2	0.16	0.10	410	30	19
Inferred	10.0	1.6	0.14	0.07	170	14	7.6
Total	**31**	**2.1**	**0.16**	**0.10**	**640**	**49**	**31**
Stockpiles							
Indicated	14	1.5	0.91		210	130	
Total	**14**	**1.5**	**0.91**		**210**	**130**	
Kinsevere Copper Total	**59**	**2.0**	**0.67**	**0.08**	**1,200**	**400**	**46**
Oxide-TMO Cobalt[5]							
Measured	-			-			-
Indicated	0.70	0.21	0.12	0.32	1.50	0.81	2.30
Inferred	0.73	0.16	0.08	0.33	1.10	0.61	2.4
Total	**1.40**	**0.2**	**0.1**	**0.32**	**2.60**	**1.40**	**4.6**
Primary Cobalt[6]							
Measured	-			-			-
Indicated	0.17	0.31	0.04	0.20	0.53	0.07	0.34
Inferred	0.24	0.26	0.03	0.22	0.62	0.07	0.53
Total	**0.41**	**0.3**	**0.04**	**0.21**	**1.10**	**0.14**	**0.87**
Kinsevere Cobalt Total	**1.8**	**0.21**	**0.09**	**0.30**	**3.8**	**1.6**	**5.5**

[1] AS stands for Acid Soluble

[2] 0.5% Acid soluble Cu cut-off grade

[3] 0.6% Total Cu cut-off grade

[4] 0.6% Total Cu cut-off grade

[5] 0.2% Co cut-off grade

[6] 0.1% Co cut-off grade

All Mineral Resources except stockpiles are contained within a US$4.04/lb Cu and $30.30/lb Co pit shell

Contained metal does not imply recoverable metal.

Figures are rounded according to JORC Code guidelines and may show apparent addition errors.

4.1.2 Mineral Resources JORC 2012 Assessment and Reporting Criteria

The following information provided in Table 9 complies with the 2012 JORC Code requirements specified by "Table-1 Section 1-3" of the Code.

Table 9 JORC 2012 Code Table 1 Assessment and Reporting Criteria for Kinsevere Mineral Resource 2022

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
Sampling techniques	• The Mineral Resource uses a combination of reverse circulation (RC) drilling and diamond drilling (DD). The RC drilling is predominately collected for Grade Control (GC) purposes. GC is also included in the Mineral Resource model to better delineate the grade / chemistry envelopes, but not for lithological / stratigraphic modelling due to challenges with the RC material for detailed lithology determination. The DD is used for lithology / stratigraphy modelling as well as exploration and resource delineation work in the areas below and outside of current mining. • DD core is sampled mostly in 1m intervals while samples in un-mineralised zones are sampled over 4m lengths. Sampling is predominantly performed by cutting the core longitudinally in half, with one half retained on site for future reference. For PQ drilling undertaken 2015-2020, quarter core was submitted for sampling. • Grade control drilling (RC) samples are collected directly from the cyclone after every 2m of drilling. A subsample is taken using a riffle splitter of approximately 2kg weight. The rods are "blown" by the RC Rig after each 3m rod addition. • For grade control each sample is crushed and pulverised to produce a pulp (>85% passing 75µm) prior to analysis at the Kinsevere SGS laboratory. The exploration DD samples are prepared at commercial laboratories to produce a pulp (>85% passing 75µm) for analysis. • Measures taken to ensure sample representativity include orientation of the drill holes as close as practical to perpendicular to the known mineralised structure. In addition, field duplicates are also collected and analysed as part of the QAQC insertion for both RC coarse duplicates at the rig and DD coarse duplicates prepared at the core yard. • The sample types, nature, quality and sample preparation techniques are considered appropriate for the style of the Kinsevere mineralisation (sediment hosted base metal) by the Competent Person.
Drilling techniques	• At the RC drilling site, samples are collected for a 2m drilled interval, while DD is sampled at nominal 1m intervals for mineralised core and 1.5m for visually unmineralized core. 474,794.5m or 77% of the sample data used in the Mineral Resource were from RC samples (5.5-inch hammer), of that 372,733m (79%) was from Grade Control drilling. • PQ and HQ sized DD core were used to obtain nominal 1m sample lengths. 2015-2022 DD core was not routinely oriented. 102,061.5m or 21% of the sample data used in the Mineral Resource was from DD samples. • 44,980m of RC Grade Control drilling was completed since the previous Mineral Resource estimate (2020) and utilised in the 2022 estimate. • 37 exploration DD holes were completed post the 2020 Mineral Resource estimate for a total of 5,432.5m. The latest drilling comprises 31 holes which were drilled in early 2021 to test the continuity of the mineralisation at Kinsevere Hill South.

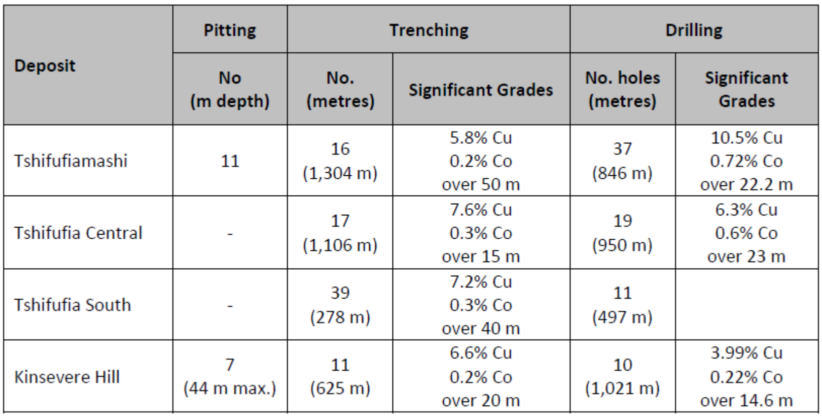
Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	- In the view of the Competent Person, the drilling techniques are appropriate for providing samples with which to estimate the Kinsevere Mineral Resource.
Drill sample recovery	- DD core recovery recorded was typically above 90%, with only minor losses in competent ground (recovery average 97.3% for all drilling, and over 98.7% within ore zones). As expected, the recovery is less in unconsolidated ground, such as weathered material close to surface and in vuggy zones of dolomitic rocks (average recovery approximately 85% in this area). The vuggy zones are generally controlled by major structures. Triple tube core barrels were used to maximize core recovery. DD core recovery and run depth are verified and checked by a geological technician at the drill site. This data is recorded and imported into the Geobank® database. - RC drilling has been observed for sample recovery with adequate sample volume being returned. However, no quantitative measurements of recovery have been recorded. - There is no discernible relationship between core loss and mineralisation or grade, therefore no preferential bias has occurred due to core loss.
Logging	- RC chips were logged by geologists directly into an Excel logging template, however recent practice is directly into Geobank® Mobile using ruggedised laptops. Geological information captured includes lithology, stratigraphy, weathering, oxidation, colour, texture, grain size, mineralogy and alteration. This data is then imported into the database. - For DD core samples, both geological and geotechnical information is logged directly into Geobank® Mobile using ruggedised laptops. The information includes lithology, stratigraphy, mineralisation, weathering, alteration and geotechnical parameters (strength, RQD, structure measurement, roughness and infill material). - All RC chip and DD core samples (100%) have been geologically logged to an appropriate level to support Mineral Resource estimation. - Logging captures both qualitative descriptions such as geological details (e.g., rock type, stratigraphy) with some semi-quantitative data (e.g., ore mineral percentages). Core photography is not known to have occurred prior to MMG ownership (2012). Since MMG took control of the site, all DD core was photographed. - 100% of all intersections were logged.
Sub-sampling techniques and sample preparation	- DD core was split longitudinally in half (NQ) or quarter (PQ) using a diamond saw. Sample lengths were cut as close to 1m as possible while also respecting geological contacts. Samples were generally 2kg to 3kg in weight. - RC samples were collected from a cyclone by a trained driller's assistant. The procedure is that if the sample is dry, the sample is passed through a riffle splitter and 2kg is collected into a pre-numbered calico bag. A sample of the residual material is sieved for collection into chip trays for logging. The splitter is cleaned using compressed air or a clean brush and tapped using a rubber mallet. If the sample is wet, then the sample is dried in the laboratory oven before being split according to the procedure for dry samples. - Samples from individual drill holes were sent in the same batch to the relevant preparation laboratory. For RC drilling, field duplicates were collected at a rate of

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	approximately 2% by riffle split to ensure that the sampling was representative of the in-situ material collected. - RC Grade Control samples were prepared mainly on-site by the Kinsevere Geology Department's Sample Processing Facility prior to dispatch to the relevant analytical laboratory. The procedure is for samples to be checked and weighed on receipt, oven dried at approximately 110°C, weighed dry, crushed to 85% passing 2mm using a jaw crusher, passed twice through a riffle spitter to obtain a sample of approximately 1kg that is milled to 85% passing 75µm using one of three single sample LM2 vibratory pulverising mills. 50g of the milled material is packaged for analysis as well as a 30g sample for rapid Nition XRF analysis when required. The pulp reject material is stored. - Since 2015, all exploration and near-mine DD drilling core and RC chips were processed at the ALS managed Containerised Preparation Laboratory (CPL). Pulp samples where then sent to ALS Johannesburg for analysis. Since the closure of Near Mine Drilling Project at the end of May 2019, all the DD samples were prepared by the SSM Laboratory in Likasi (milled to 85% passing 75µm) and analysed at SSM in Kolwezi. - The sample size for both RC and DD is considered appropriate for the grain size of the material being sampled. The RC field duplicates typically show precision of 85% better than ±20% indicating that the sample size is appropriate and the sub-sampling is of acceptable quality.
Quality of assay data and laboratory tests	- RC GC samples are routinely assayed at the on-site SGS Laboratory. Some samples are assayed at ALS laboratory (JHB) and SSM at Kolwezi if there are capacity constraints on-site. The process is as follows: o Following preparation, 50g pulp samples are routinely analysed for total and acid soluble copper, cobalt and manganese. o A 3-acid digest with AAS finish is used to analyse for total values. A sulphuric acid digest with AAS finish is used to analyse for acid soluble copper. - All DD core samples prior to 2011 were assayed at either ALS Chemex Laboratory in Johannesburg, McPhar Laboratory in Philippines or ACT Labs Laboratory in Perth. Samples were analysed for total copper and acid soluble copper with some having a full suite of elements analysed with a four-acid digest and ICP-OES analysis. - From 2011 to 2015, prepared samples were submitted to the ISO 17025 accredited SGS Laboratory in Johannesburg with the following assay scheme: o ICP-OES method with a 4-acid digest analysing 32 elements including copper from 0.5ppm to 1%. o ICP-OES method using alkali fusion is applied to over-range copper results. o ICP-AES with a 4-acid digest was used for calcium and sulphur analysis o XRF was used for uranium analysis. o Acid soluble copper using a sulphuric acid digest and AAS finish - Since 2015, prepared samples were submitted to the ALS Laboratory in Johannesburg with the following assay scheme: o ICP-OES (ME-ICP61) method with a 4-acid digest analysing 33 elements plus OG triggers when Cu greater than 1% (OG62)

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	○ LECO analysed Total Carbon (C-IR07), Organic Carbon (C-IR17), Total Sulphur (S-IR08) and Sulphide Sulphur (S-IR07) ○ Acid soluble copper using a Sequential Leach (Cu-PKGPH06) finish. • The analysis methods used are appropriate for the style and type of mineralisation at Kinsevere. • No geophysical tools, spectrometers or handheld XRF instruments external to the laboratory have been used in the analysis of samples for the estimation of Mineral Resources. • QAQC employs the insertion of Certified Reference Material (CRM) every 25 samples. Blanks, field duplicates, coarse duplicates and pulp duplicates are taken / inserted within every batch of 50 samples to check repeatability of the assay result. If control samples do not meet an acceptable level the entire batch is re-analysed. GC samples are subjected to the same assay QAQC as the exploration RC and DD samples. • Approximately 5% of the samples were sent to second laboratories for check assay. These were ISO 17025 accredited commercial facilities, previously Intertek Genalysis (Perth) and currently ALS (Johannesburg). • The QAQC results demonstrate that the sample assays are both accurate and precise and minimal contamination was introduced during the process. The sample assays are considered by the CP to be suitable for Mineral Resource estimation.
Verification of sampling and assaying	• Significant intersections are verified by alternate company personnel following receipt of assay results and during the geological modelling process. • Twinned holes were used to confirm and check specific geological intervals and/or assay intervals. Twin drill holes are not used in the Mineral Resource estimate. • Data is collected in Excel spreadsheets and imported into industry standard databases that have built in validation systems and QAQC reporting systems. Raw electronic assay data is imported directly into the database as received by the laboratory, using import scripts, and is checked by the DB manager. • Where data was deemed invalid or unverifiable it was excluded from use in Mineral Resource estimation. • Individual acid soluble copper assays greater than total copper assays are adjusted to the total copper assay value.
Location of data points	• Prior to 2011, all drill hole collars were located using a hand-held GPS. Accuracy is approximately ±5m for X and Y coordinates and poorer accuracy for the Z (elevation) coordinates. Elevations of these holes were later projected to a LIDAR survey surface. • RC and DD holes collared post-2011 are surveyed by qualified surveyors. Down hole surveys have been carried out using Eastman single-shot cameras or Reflex EZ tools. Surveys are taken at variable intervals and stored in the database. • Coordinates are in Kinsevere Mine Grid, which is related to WGS84 by the following translation: -8,000,000 m in northing and -22.3 m in elevation.

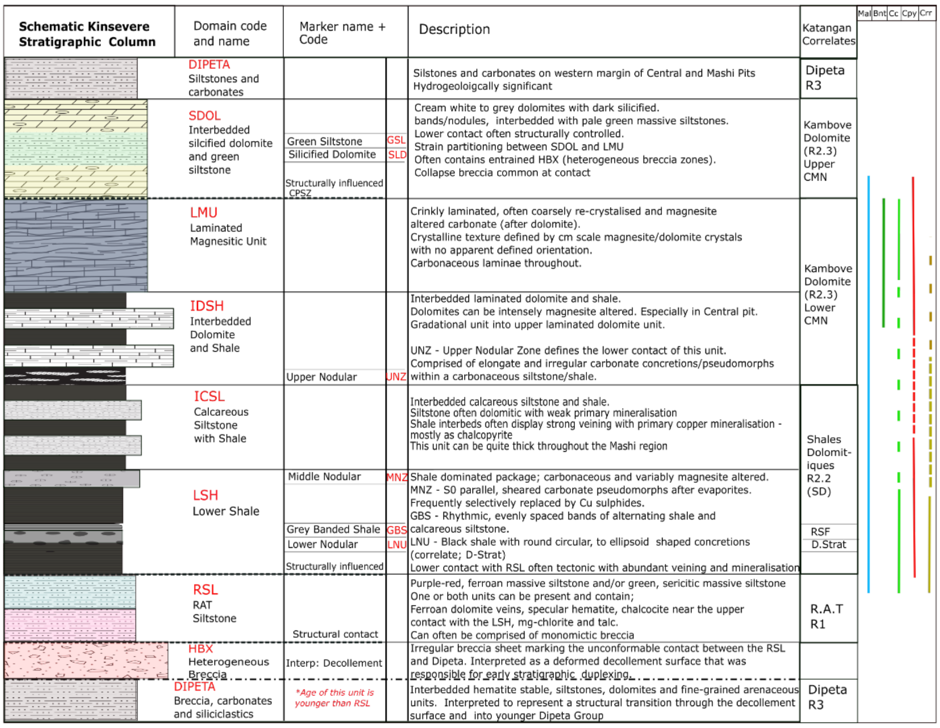
<table>
<tr><th colspan="2">Section 1 Sampling Techniques and Data</th></tr>
<tr><th>Criteria</th><th>Commentary</th></tr>
<tr><td></td><td>A LIDAR survey was used to generate a topographic surface. This surface was also used to better define the elevation of drill hole collars. The LIDAR survey considered to be of high quality and accuracy for topographic control.</td></tr>
<tr><td>Data spacing and distribution</td><td>Majority of the GC drilling is on a 5m by 15m grid, however in 2018 the GC grid was 10m by 10m. Since 2019, the standard has been revised back to 5m by 15m. The RC GC drilling is sufficient to provide high confidence in the definition of grade and material type boundaries for the operation.
The overall DD spacing is between 25m and 75m, which is sufficient to establish the required degree of geological and grade continuity for Mineral Resource estimation. Between 2015 and 2019, diamond drilling aimed to infill target areas to 40m by 40m spacing and 20m by 20m in places.
DD samples are not composited prior to being sent to the laboratory however the nominal sample length is generally 1m. RC samples are 2m intervals but compositing up to 4m has occurred in the past. Compositing to 2 m is completed for the Mineral Resource estimation process.</td></tr>
<tr><td>Orientation of data in relation to geological structure</td><td>The mineralisation strikes between north and north-west at Mashi and Central pits, and from east-southeast to west-northwest at Kinsevere Hill. All drill holes are oriented such that drill holes have a high angle of intersection with the dominant strike and dip of bedding and structures, with the local scale of mineralisation also considered. Drill holes are generally either oriented east or west with dips of 60° to sub-vertical.
The combination of both east and west orientations likely minimises sampling bias, which, if present, is not considered material.</td></tr>
<tr><td>Sample security</td><td>Measures to provide sample security include:
Adequately trained and supervised sampling personnel.
Shipping containers used for the storage of samples are kept locked with keys held by the security department.
Assay laboratory checks of sample dispatch numbers against submission documents.</td></tr>
<tr><td>Audit and reviews</td><td>An external independent audit was performed on the grade control sampling techniques in July 2019 by OBK Consultants. Recommendations for improvements were provided and no material issues were identified.
Internal visits by MMG Group Office geologists to the SGS, ALS and SSM Lubumbashi laboratories. From the most recent audit by the MMG Senior Geochemist (February 2020), there were no material risks identified.</td></tr>
</table>

<table>
<tr><th colspan="2">Section 2 Reporting of Exploration Results</th></tr>
<tr><th>Criteria</th><th>Commentary</th></tr>
<tr><td>Mineral tenement and land tenure status</td><td>
The Kinsevere Mining Licence (PE 528) is located approximately 27km north of Lubumbashi, the provincial capital of the Haut-Katanga Province, in the southeast of the Democratic Republic of the Congo (DRC). The PE 528 permit covers the three major deposits of Tshifufiamashi, Tshifufia and Kinsevere Hill/Kilongo.
MMG has a Contrat d’Amodiation (Lease Agreement) with Gécamines to mine and process ore from the Kinsevere Project until 2024. A renewal application process for a 15-year extension was submitted to DRC regulatory in 2022 (as per the requirement that it should be submitted at least 1 year and no more than 5 years before the expiry date).
A Contrat d’Amodiation is provided for under the DRC Mining Code, enacted by law No 007/2002 of July 11, 2002.
A conversion of the adjacent_PR7274 to an exploitation permit was completed in 2018. Tenement amalgamation (of PE528 and PE7274) was completed in early March 2019, with PE7274 incorporated into PE528.
There are no known regulatory impediments to operating at Kinsevere.
</td></tr>
<tr><td>Exploration done by other parties</td><td>
Summary of Previous Exploration Work by Gécamines and EXACO:


<table>
<tr><th rowspan="2">Deposit</th><th>Pitting</th><th colspan="2">Trenching</th><th colspan="2">Drilling</th></tr>
<tr><th>No
(m depth)</th><th>No.
(metres)</th><th>Significant Grades</th><th>No. holes
(metres)</th><th>Significant Grades</th></tr>
<tr><td>Tshifufiamashi</td><td>11</td><td>16
(1,304 m)</td><td>5.8% Cu
0.2% Co
over 50 m</td><td>37
(846 m)</td><td>10.5% Cu
0.72% Co
over 22.2 m</td></tr>
<tr><td>Tshifufia Central</td><td>-</td><td>17
(1,106 m)</td><td>7.6% Cu
0.3% Co
over 15 m</td><td>19
(950 m)</td><td>6.3% Cu
0.6% Co
over 23 m</td></tr>
<tr><td>Tshifufia South</td><td>-</td><td>39
(278 m)</td><td>7.2% Cu
0.3% Co
over 40 m</td><td>11
(497 m)</td><td></td></tr>
<tr><td>Kinsevere Hill</td><td>7
(44 m max.)</td><td>11
(625 m)</td><td>6.6% Cu
0.2% Co
over 20 m</td><td>10
(1,021 m)</td><td>3.99% Cu
0.22% Co
over 14.6 m</td></tr>
</table>

In 2004 Anvil Mining carried out intensive exploration drilling to define the deposits at Kinsevere.
In 2012 MMG continued exploration aimed at identifying additional mineralisation beyond the Anvil Mining Mineral Resource.
In 2013/2014 MMG Exploration conducted works around the Mine Lease within a 50km radius of the known deposit to explore for additional high-grade oxide material.
In 2015 MMG conducted a Scoping Study on the potential to process the copper sulphide ore at Kinsevere located beneath the current oxide Ore Reserves. As part of this study, 5 DD holes were drilled in early 2015. In August 2015, DD drilling re-commenced as part of a follow up on Pre-Feasibility Study to increase confidence in the copper sulphide Mineral Resource. This drilling was completed at the end of 2016 and included in the 2017 Resource Estimate.
</td></tr>
</table>

Section 2 Reporting of Exploration Results	
Criteria	**Commentary**
	• Drilling commenced in May 2017 to inform the Sulphide Feasibility Study. This drilling was used to update the 2018 Mineral Resource model. • Drilling commenced in Jan 2018 to test the geological continuity between Mashi and Central Pit. This was completed in September 2018. Drilling then continued in 2018 in the south of Kinsevere Hill (south of Kinsevere copper deposit). This drilling tested the copper mineralisation at depth. These two drilling programs were used to update the 2020 Mineral Resource model. • In early 2020, exploration diamond drilling was conducted to delineate and test the continuity of the deeper sulphide mineralization between Central and Mashi pits. A total of 5 holes were drilled targeting the deeper Central Sulphide Extension below the current final pit Mineral Resource reporting limit. These data were used in the 2022 Model update. • 6 exploration DD drilling holes were completed in 2020 post the 2020 Mineral Resource estimate. • The latest drilling comprises 31 holes which were drilled in early 2021 to test the continuity of the mineralisation at Kinsevere Hill South.
Geology	• The Kinsevere deposit is a sediment hosted copper deposit with low-grade cobalt association. • The deposit is comprised of the R1, R2 and R3 Subgroups of the Neoproterozoic Roan Group (Refer to stratigraphic column in this section.). Copper mineralisation is generally confined to the Mines (R2) Subgroup; however, minor copper-oxide and copper-sulphide development occurs along the R1-R2 contact and the R2-R3 contact. • The deposit is located along a major structural element termed the Kinsevere lineament. Halokenetic and tectonic processes have resulted in the emplacement of discrete lower Roan (R2) stratigraphic blocks onto younger, upper Roan (R3 and above) stratigraphy. • The Kinsevere deposit is comprised of three distinct mineralisation domains: Central, Mashi and Kinsevere Hill. Central and Mashi form a contiguous sequence of mineralised Mine Series correlates that host copper-cobalt oxides and sulphides. Kinsevere Hill represents a structurally isolated occurrence of Mine Series host rocks containing copper-cobalt oxides with minor copper sulphides. • Copper oxide mineralisation is defined as material that has CuAS:CuT ratio from 0.5 to 1. The principal copper oxide mineral is malachite with subordinate chrysocolla, copper clays (Goethite and Mn-WAD), pseudomalachite and rare azurite. Tenorite, native copper and other minor copper oxide phases (Cu-intergrowths) are also present in minor quantities (<5% of total Cu oxide mineralogy). The largest proportion of copper oxide mineralisation is hosted in weathered/oxidised carbonates (CMN) as fracture fill, void fill, mineral replacement and coatings. There is a strong preference for copper oxides to develop in CMN lithologies, especially within strongly weathered, brecciated and karstic zones. • "Transitional and Mixed Ores" (TMO) are copper ores that have a CuAS:CuT ratio between 0.2 and 0.5. Transitional ore zones are classified as zones that contain dominantly transitional copper species such as chalcocite, covellite, cuprite and

Section 2 Reporting of Exploration Results	
Criteria	**Commentary**
	native copper and are likely to have formed during progressive supergene weathering. Mixed ore zones are defined as containing both sulphide and oxide copper phases present together - particularly malachite, chalcocite and chalcopyrite - Sulphide mineralisation at Kinsevere is defined by all material that has an CuAS:CuT ratio < 0.2. Sulphide mineralisation at Kinsevere has several different modes of development and styles. The three major types are: 1. Replacement of early diagenetic pyrite and evaporites by chalcopyrite and carrolite. 2. Replacement of carbonate minerals by copper and cobalt sulphides. 3. Sulphide bearing veins and vein replacement.  *Kinsevere Mine Series Stratigraphy*
Drill hole information	- Within the database used for estimation, there are 2,533 exploration drill holes (528 DD, 32 RC with DD tail and 1,973 RC) and 12,551 grade control drill holes (all RC). - The details of the individual drillholes are not material to the report. Exploration results are not being reported.
Data aggregation methods	- Exploration Results not being reported. - No metal equivalents were used in the reporting.
Relationship between mineralisation width and intercepts lengths	- Exploration Results not being reported. - Most drilling was at 50° to 60° dip angles close to perpendicular to the strike in order to drill close to true width intersections with the sub-vertically dipping mineralisation.

Schematic Kinsevere Stratigraphic Column	Domain code and name	Marker name + Code		Description	Katangan Correlates
	DIPETA Siltstones and carbonates			Silstones and carbonates on western margin of Central and Mashi Pits Hydrogeoloigcally significant	Dipeta R3
	SDOL Interbedded silcified dolomite and green siltstone	Green Siltstone Silicified Dolomite Structurally influenced CPSZ	GSL SLD	Cream white to grey dolomites with dark silicified. bands/nodules, interbedded with pale green massive siltstones. Lower contact often structurally controlled. Strain partitioning between SDOL and LMU Often contains entrained HBX (heterogeneous breccia zones). Collapse breccia common at contact	Kambove Dolomite (R2.3) Upper CMN
	LMU Laminated Magnesitic Unit			Crinkly laminated, often coarsely re-crystalised and magnesite altered carbonate (after dolomite). Crystalline texture defined by cm scale magnesite/dolomite crystals with no apparent defined orientation. Carbonaceous laminae throughout.	Kambove Dolomite (R2.3) Lower CMN
	IDSH Interbedded Dolomite and Shale	Upper Nodular	UNZ	Interbedded laminated dolomite and shale. Dolomites can be intensely magnesite altered. Especially in Central pit. Gradational unit into upper laminated dolomite unit. UNZ - Upper Nodular Zone defines the lower contact of this unit. Comprised of elongate and irregular carbonate concretions/pseudomorphs within a carbonaceous siltstone/shale.	
	ICSL Calcareous Siltstone with Shale			Interbedded calcareous siltstone and shale. Siltstone often dolomitic with weak primary mineralisation Shale interbeds often display strong veining with primary copper mineralisation - mostly as chalcopyrite This unit can be quite thick throughout the Mashi region	Shales Dolomit-iques R2.2 (SD)
	LSH Lower Shale	Middle Nodular Grey Banded Shale Lower Nodular Structurally influenced	MNZ GBS LNU	Shale dominated package; carbonaceous and variably magnesite altered. MNZ - S0 parallel, sheared carbonate pseudomorphs after evaporites. Frequently selectively replaced by Cu sulphides. GBS - Rhythmic, evenly spaced bands of alternating shale and calcareous siltstone. LNU - Black shale with round circular, to ellipsoid shaped concretions (correlate; D-Strat) Lower contact with RSL often tectonic with abundant veining and mineralisation	RSF D.Strat
	RSL RAT Siltstone	Structural contact		Purple-red, ferroan massive siltstone and/or green, sericitic massive siltstone One or both units can be present and contain; Ferroan dolomite veins, specular hematite, chalcocite near the upper contact with the LSH, mg-chlorite and talc. Can often be comprised of monomictic breccia	R.A.T R1
	HBX Heterogeneous Breccia	Interp: Decollement		Irregular breccia sheet marking the unconformable contact between the RSL and Dipeta. Interpreted as a deformed decollement surface that was responsible for early stratigraphic duplexing.	
	DIPETA Breccia, carbonates and siliciclastics	*Age of this unit is younger than RSL		Interbedded hematite stable, siltstones, dolomites and fine-grained arenaceous units. Interpreted to represent a structural transition through the decollement surface and into younger Dipeta Group	Dipeta R3

<table>
<tr><th colspan="2">Section 2 Reporting of Exploration Results</th></tr>
<tr><th>Criteria</th><th>Commentary</th></tr>
<tr><td>Diagrams</td><td>

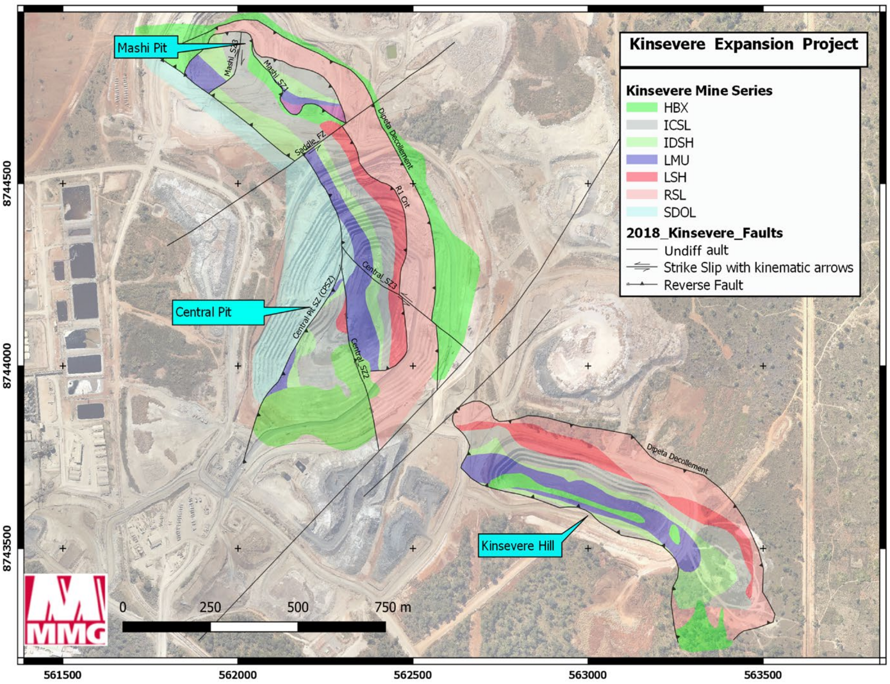
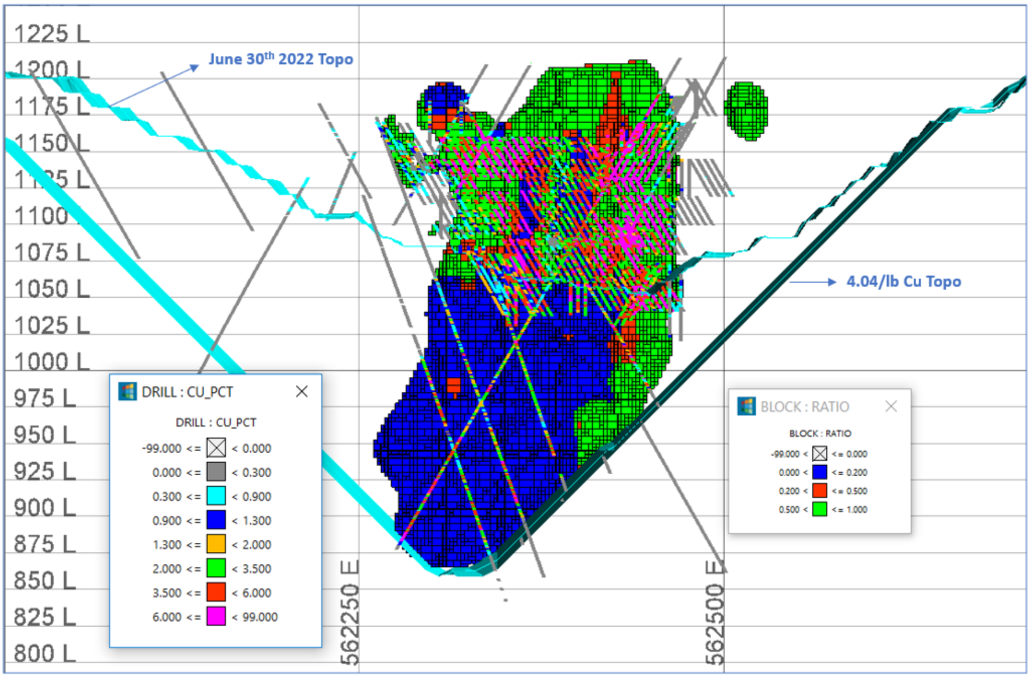


Figure 2: Plan view geology map of the Kinsevere deposit



Cu Shell coded by Oxidation state (Green – Oxide / Red – TMO / Blue – Primary)- 744250N Cross Section

</td></tr>
<tr><td>Balanced reporting</td><td>

- Exploration Results not being reported.

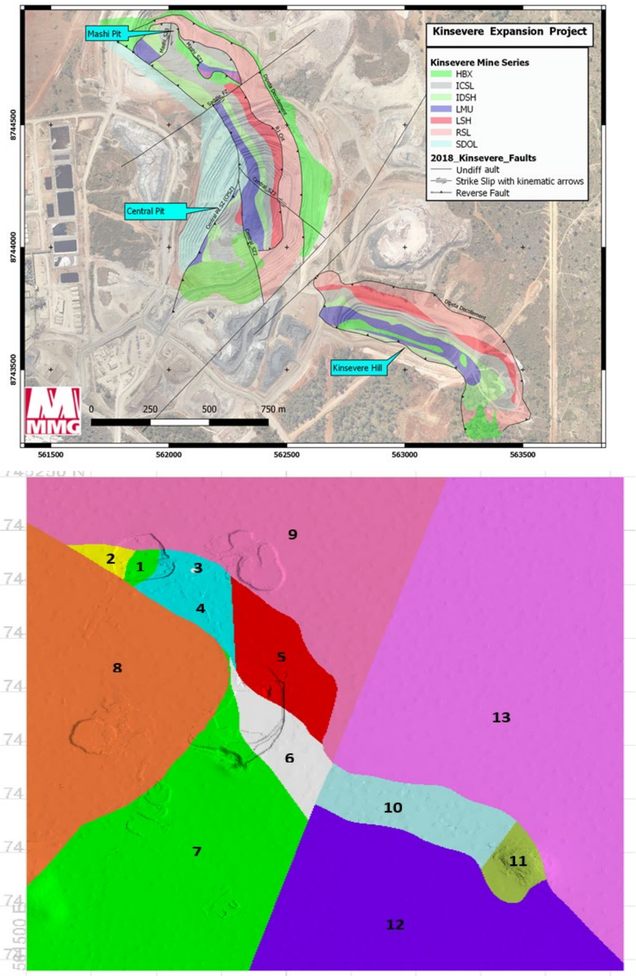
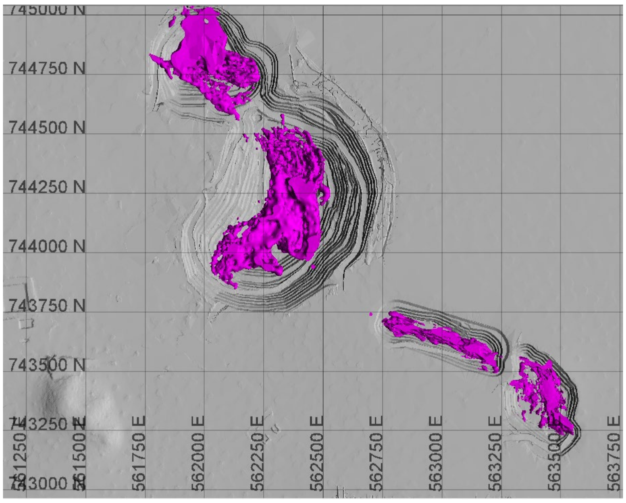
</td></tr>
</table>

Section 2 Reporting of Exploration Results	
Criteria	**Commentary**
Other substantive exploration data	• There is no other substantive exploration data of relevance.
Further work	• Brownfields RC and DD drilling is carried out, as when required. • The mine has a detailed Grade Control drilling programme that is ongoing.

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
Database integrity	• The following measures are in place to ensure database integrity: ○ Drillhole data (RC and DD) is stored in two SQL databases with front end access provided by Geobank® software. ○ The grade control logging and assay data (RC) is managed by the on-site Geology team with support from the Operations and Technical Excellence database team in Melbourne. ○ The exploration/resource logging data (RC and DD) is managed by the on-site Resource team with assay loading and support provided by the Operations and Technical Excellence database team in Melbourne. ○ Assay data is provided by the laboratory as .csv files in a prescribed format and loaded directly into the dataset using a script. The data is then checked to ensure there are no errors, such as column swaps. ○ Data is entered directly into Geobank® or Geobank Mobile® using the database validation rules. These check for data consistency, missing intervals, overlaps, invalid codes and invalid values, thus maintaining data integrity. ○ The databases offer secure storage and consistent data which is exposed to validation processes, standard logging and data recording lookup codes. • The measures described above ensure that transcription or data entry errors are minimised. • Data validation procedures include: ○ Internal database validation systems and checks. ○ Visual checks of exported drill holes in section and plan view, checking for accuracy of collar location against topography, and downhole trace de-surveying. ○ External checks in Vulcan software prior to the data used for Mineral Resources. ○ Checks on statistics, such as negative and unrealistic assay values. • Any data errors were communicated to the Database team to be fixed in Geobank. • Data used in the Mineral Resource has passed a number of validation checks both visual and software related prior to use in the Mineral Resource.
Site visits	• The Competent Person (Jeremy Witley) visited the Kinsevere site from 24 to 29 July 2022.

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
	• During the site visit, data collection methods were demonstrated and the open-pitsopen pits were inspected. The CP considers that the procedures used at Kinsevere are appropriate.
Geological interpretation	• The geological sequences at Kinsevere can be considered correlatives of the Katangan Mines Subgroup units, albeit with unique features (thick shale sequence) and notable absences (no RSC). These subtle differences have resulted in inconsistent mapping and logging at the deposit-scale. In response to this, a Kinsevere-specific classification was generated with the aim of assisting geological understanding, facilitating consistent logging and mapping between geologists, and improving geological and resource modelling. The local stratigraphy has been termed the Kinsevere Mine Series (KMS). • Detailed 3D geological modelling was completed using the Kinsevere Mine Series framework and updated annually using diamond drilling. Diamond drilling, mapping/structural observations, photogrammetry and litho-geochemistry were integrated into the model. The model was last updated in Q1 2022. The resulting model is considered robust and reliable for mineralisation modelling and grade/estimation domaining. • Most of the estimated gangue variables were domained to help constrain each estimation. The following variables were domained using numeric indicator interpolation methods in Leapfrog Geo: Mg (6%), Ca (9%), Al (2.5%), Organic Carbon (0.25% and 1.5%) and S (1.5%). • Cobalt was domained using a numeric indicator interpolant approach. A 0.07% Co threshold was used to guide the interpolation. • Copper was domained using a numeric indicator interpolant approach aligned with geological and mineralisation trends and boundaries. Copper volumes were generated using a 0.4% total Cu threshold to guide the interpolation. • The magnitude of the acid soluble copper/total copper (CuAS /CuT) ratio has been used as an important criterion for the determination of the oxide, TMO and primary sulphide zones. The following ratios have been used to delineate the respective zones: o Oxide > 0.8 o Transition and mixed (TMO) between 0.2 and 0.8 o Primary < 0.2 • An Indicator Kriging approach was used to construct oxide domains (within the mineralised zone) based on specific CuAS:CuT ratio thresholds. • The oxide, lithology, fault and mineralisation domains were combined to code the drill hole data and the block model used for grade estimation. • Structural features (faults/fractures) provide an important control on the mineralisation and grade continuity. The structural model last updated in 2018 was used to inform the 2022 block model, which has been used to report the 2022 Mineral Resource estimate. • All geological modelling was completed using Leapfrog Geo software.

Section 3 Estimating and Reporting of Mineral Resources

Criteria	Commentary
	 *Figure 4: Plan View of Kinsevere Lithology (top) and Fault Domains (bottom)*  *Figure 5: Plan View of Kinsevere Cu domain on the June 30th 2022 Topo*
Dimensions	• The mineralisation strike length is approximately 1.3km for the Tshifufia (Central) and Tshifufiamashi (Mashi) deposits combined, while Kinsevere Hill has a 1km strike length. The mineralisation dips sub-vertically. Mineralisation extends to 400m at

<table>
<tr><th colspan="2">Section 3 Estimating and Reporting of Mineral Resources</th></tr>
<tr><th>Criteria</th><th>Commentary</th></tr>
<tr><td></td><td>depth, and it can be up to 300m in width. The mineralisation outcropped prior to mining.</td></tr>
<tr><td>Estimation and modelling techniques</td><td>

Estimation applied mostly kriging interpolation within domains as outlined further in this section and is considered appropriate for this style of mineralisation.
Mineral Resource estimation was conducted using Vulcan software (version 2021.5).
Variograms were modelled for major elements including CuT, CuAS, CuAS/CuT, Ca, Fe, Mn, Mg and S. Estimation was based on a combination of weathering, lithology and fault domains. Variogram models in the 2022 Mineral Resource models were updated for Kinsevere Hill based on new drilling since 2020.
The key estimation assumptions and parameters are as follows:

CuT, CuAS, CuAS/CuT, CoT, CoAS, Ca, Fe, Mg, Mn and S were estimated using Ordinary Kriging (OK). Uranium (U) was estimated by using Inverse Distance to the power of 2 (ID2).
Local Varying Anisotropy (LVA) grade modelling was applied to capture the local varying directional grade and geology trends.
Oxide, mixed and primary sulphide domains were based on the CuAS/Cu ratio. This formed domains for Cu, Co, Fe, Mn, Ca and Total Carbon. Individual elements were estimated with their respective domains as modelled in Leapfrog Geo: CuT (0.4%), TCo (0.07%), Mg (6%), Ca (9%), Al (2.5%), Organic Carbon (0.25% and 1.5%) and S (1.5%). Lithology wireframes were used as domains for the major elements. Uranium was domained by the total copper envelope.
Wireframes and surfaces of the topography, mineralised domains, lithology and fault domains, together with oxide domain were used to code the drill hole samples.
The samples were composited to 2 m by length weighting for statistical analysis and grade estimation. Any residual intervals less than half the composite interval were appended to the previous sample interval.
Extreme grade values were managed by grade capping, which was performed post compositing. Values greater than the selected cut value were set to the top cut (cap) value and used in the estimation.
Grade estimation was completed using a hard boundaries for each domain.
No assumptions have been made about the correlation between variables. All variables are independently estimated, with the exception of certain domaining assumptions as described above.
Search parameters for CuT, CuAS, CuAS/CuT, CoT, CoAS, Ca, Fe, Mg and Mn estimation were derived from mineralisation and waste domain variography and on Quantitative Kriging Neighbourhood Analysis (QKNA). U search parameters were based on a generic search of 400m x 400m x 400m, U grades higher than 250ppm were distance limited to 20m.
Three estimation passes were used to estimate the block model. The first and second estimation pass search radii used 100% of the variogram range and the third pass estimation search radius used 200% of the variogram range. Over 80% of the blocks are informed in the first pass. The second and third passes required less sample composites to estimate a block.
A minimum of 6 sample composites were required for the first pass and 4 for the second pass. A maximum of 10 sample composites was used for each

</td></tr>
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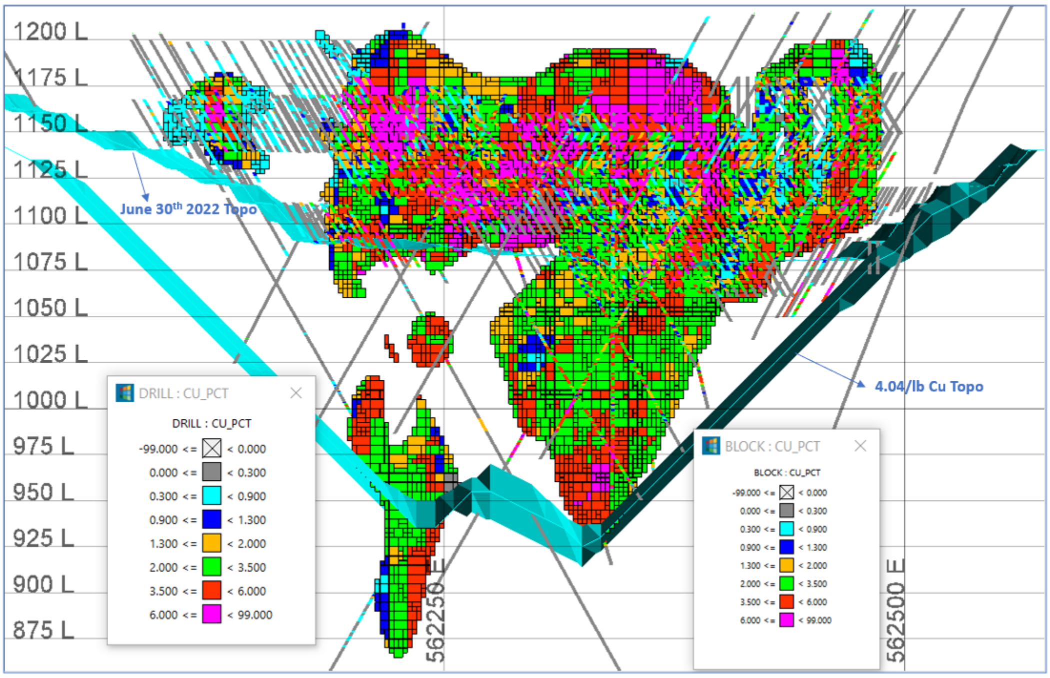
Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
	estimate. The third pass generally required less samples, with the number modified according to the individual element. The search neighbourhood was also limited to a maximum of 3 samples per drill hole. o The matrix of discretisation points was set to 4 x 8 x 2 (X, Y, Z) to provide for block estimates. o Kriging variance (KV), kriging efficiency (KE) and kriging regression slope (RS) of the Cu estimate were calculated during the estimation. • The 2020 and 2022 in-situ Mineral Resource models were compared and show no material difference. The larger differences being where the new drilling occurred (mainly Kinsevere Hill South). • The comparison between the Mineral Resource and the mill feed grade is complicated by the operational strategy of treating high-grade ore and stockpiling lower-grade ore for later treatment. The Mineral Resource model and Grade Control model are compared annually. Generally higher tonnes and are achieved by the GC model with the grade difference varying between higher and lower. • Kinsevere does not currently produce any by-products hence no assumptions regarding the recovery of by-products are made in the estimate or cut-off and reporting. Cobalt is planned to be produced in future. • Parent block size of the Kinsevere block model is 10mX x 20mY x 5mZ with sub-blocking down to 2.5m. Estimation was into the parent block. The size of the blocks is appropriate to the spacing of drill holes. • No further assumptions have been made regarding modelling of selective mining units. • The block model and estimate has been validated in the following ways: o Visual checks in section and plan view against the drill holes. o Grade trend plots comparing the model against the drill holes. o Summary statistics comparing the model to the sample.
Moisture	• Tonnes in the model have been estimated on a dry basis.

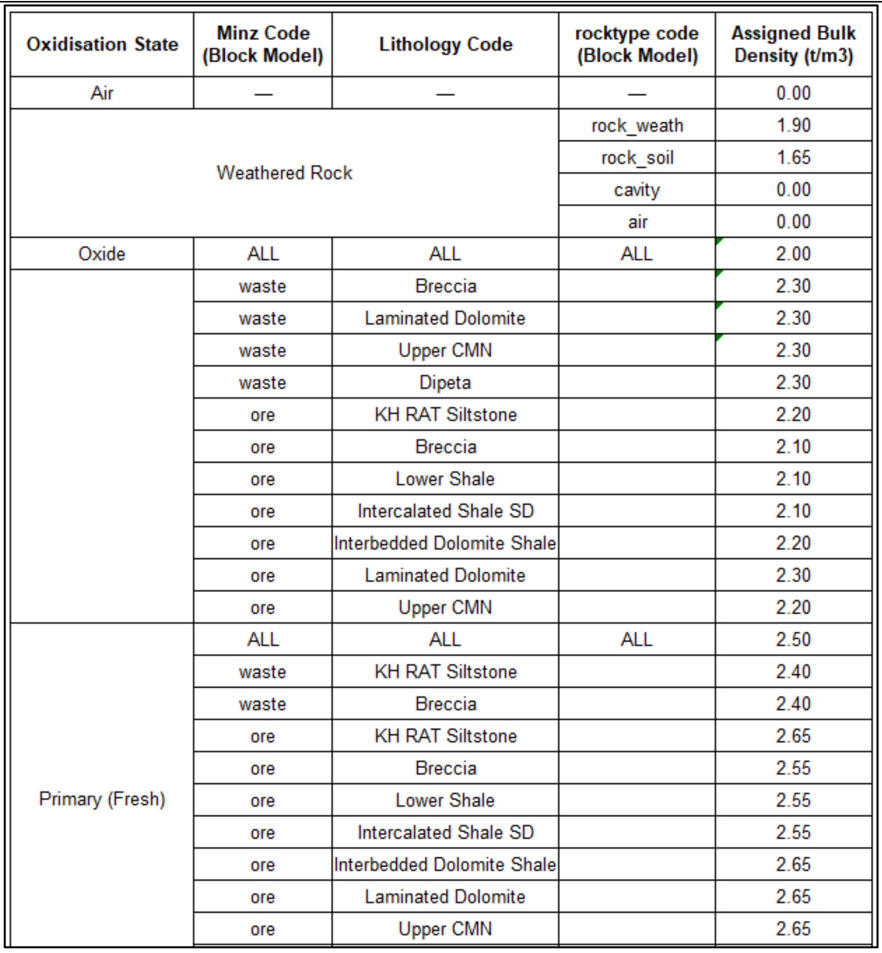
Section 3 Estimating and Reporting of Mineral Resources

Criteria	Commentary
Cut-off parameters	- The Oxide Mineral Resource has been reported above an acid soluble copper cut-off grade of 0.5% and an acid soluble to total copper ratio greater than or equal to 0.5. - The transitional and mixed ore (TMO) Mineral Resource has been reported above a total copper cut-off grade of 0.6% and a CuAS/CuT ratio between 0.2 and 0.5. - The sulphide Mineral Resource has been reported above a total copper cut-off grade of 0.6% and a CuAs/CuT ratio of less than 0.2. - Cut-off grades have decreased slightly from the 2021 Mineral Resource, in response to higher copper price. - The reported Mineral Resources have been constrained within a US$4.04/lb Cu Whittle optimised pit shell. The reported cut-off grade and the pit-shell price assumptions are in line with MMG's policy for reporting of Mineral Resources based on reasonable prospects for eventual economic extraction.  **N744100 Cross-section of Copper Mineral Resource model contained within the US$4.04/lb pit shell**
Mining factors or assumptions	- Mining of the Kinsevere deposits is undertaken by the open pit method, which is expected to continue throughout the life of mine. - Mining selection has been considered in the calculation of cut-off grade parameters and in the constraint of Mineral Resources within the US$4.04/lb Cu pit shell. - No mining factors have been applied to the Mineral Resource.
Metallurgical factors or assumptions	- The metallurgical process applied at the current Kinsevere Operation includes H_2SO_4 acid leaching followed by solvent extraction and electro-winning (SXEW) to produce copper cathode. This enables processing of oxide ores only.

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
	• The Kinsevere Expansion Project (KEP) is approved and TMO and sulphide ores will be processed using flotation, roasting fed into the SXEW plant to produce copper cathode. • The main deleterious components of the ore are carbonaceous (black) shales, which increase solution losses in the washing circuit, and dolomite which increases acid consumption in the leaching process. This is managed by stockpiles and blending. • No metallurgical factors have been applied to the Mineral Resource aside from oxide state.
Environmental factors or assumptions	• Environmental factors are considered in the Kinsevere life of asset work, which is updated annually and includes provisions for mine closure. • There are no known environmental impediments to operating in the area.
Bulk density	• In-situ dry bulk density values are determined from 6,676 diamond core density measurements, 4 in-pit bulk sample measurements and 12 in-pit measurements from specific lithologies. • Bulk sample and in-pit measurements account for void spaces. • Bulk density was calculated using the wet and dry method: ○ Bulk Density = Dry Sample Weight/(Dry Sample Weight – Wet Sample Weight • Average in-situ bulk density values were assigned to the blocks within each lithology-weathering domain.

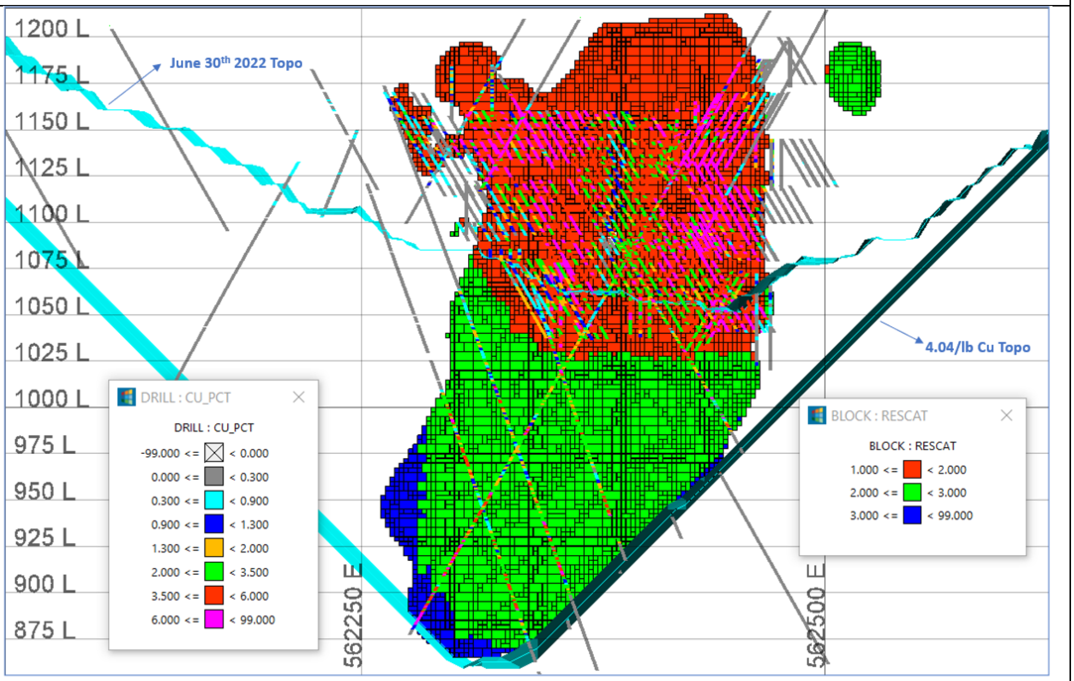
Section 3 Estimating and Reporting of Mineral Resources

Criteria	Commentary



Oxidisation State	Minz Code (Block Model)	Lithology Code	rocktype code (Block Model)	Assigned Bulk Density (t/m3)
Air	—	—	—	0.00
Weathered Rock			rock_weath	1.90
			rock_soil	1.65
			cavity	0.00
			air	0.00
Oxide	ALL	ALL	ALL	2.00
	waste	Breccia		2.30
	waste	Laminated Dolomite		2.30
	waste	Upper CMN		2.30
	waste	Dipeta		2.30
	ore	KH RAT Siltstone		2.20
	ore	Breccia		2.10
	ore	Lower Shale		2.10
	ore	Intercalated Shale SD		2.10
	ore	Interbedded Dolomite Shale		2.20
	ore	Laminated Dolomite		2.30
	ore	Upper CMN		2.20
Primary (Fresh)	ALL	ALL	ALL	2.50
	waste	KH RAT Siltstone		2.40
	waste	Breccia		2.40
	ore	KH RAT Siltstone		2.65
	ore	Breccia		2.55
	ore	Lower Shale		2.55
	ore	Intercalated Shale SD		2.55
	ore	Interbedded Dolomite Shale		2.65
	ore	Laminated Dolomite		2.65
	ore	Upper CMN		2.65

Criteria	Commentary
Classification	• Wireframes used for Mineral Resource classification are based on a combination of confidence in assayed grade, geological continuity, Kriging outputs (Kriging variance, Kriging efficiency and slope of regression) and drilling spacing. • Measured Mineral Resources are defined by the slope of regression of the kriging estimate > 0.8 and kriging efficiency > 0.7, which generally results from drilling spacing less than 20m x 20m (mostly GC). Indicated Mineral Resources are defined by the slope regression of kriging estimation > 0.7 and kriging efficiency > 0.6, which generally results from drilling spacing of 40m x 40m (exploration drilling, mostly DD). Inferred Mineral Resources are where drilling is sparser (up to 80m x 80m), with two holes being required for an individual block estimate.

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
	 **744,250mN Cross section - showing Kinsevere Mineral Resource classification and drilling density (Red-Measured, Green-Indicated, Blue-Inferred)** • Stockpiles are classified as Indicated Mineral Resources where they fulfil the cut-off grade criteria. The mineralisation was estimated based on detailed grade control drilling, with an allowance for dilution, and the volumes are accurately surveyed. The stockpiles are managed by the mines Mineral Resource Management system. • The Mineral Resource classification reflects the Competent Person's view on the confidence and uncertainty of the Kinsevere Mineral Resource.
Audits or reviews	• The 2022 Kinsevere Mineral Resource model was completed by the Kinsevere Mineral Resource Geologist with guidance and review from the corporate Head Office expert. • The Mineral Resource estimate was also reviewed by the Competent Person; and was found to be well constructed, taking into account the relevant geological features of the deposit, and is a good representation of the input data. The Competent Person is confident that the estimate is of high quality and that the Measured and Indicated portions of the model are suitable for conversion to Ore Reserves.

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
Discussion of relative accuracy / confidence	• The estimation within lithology and fault domains and the use of local varying anisotropy (LVA) is valid to accommodate changes in local dip through the deposit. • The post June 2019 grade control RC drilling has resulted in some local changes especially in the transition and primary sulphide zone where the geological interpretation is now more continuous compared to the 2019 model interpretation. • A linear regression between Total Cu and CuAS assays has been used to predict missing CuAS grades in intervals where only Total Cu had been analysed. This was done to improve the local robustness of the CuAS grade estimation. • Estimates in the deeper primary copper mineralisation will not be as locally accurate than in the shallower oxide and TMO areas, due to wider spaced drilling. However, the geological and grade interpretations are robust due to a high level of understanding of geological controls. The level of uncertainty is captured by the Indicated / Inferred Mineral Resource category. • Due to complexity of the weathering profile, it was decided to use an Indicator Kriging approach based on the ratio of acid soluble copper to total copper grade. The weathering was defined into three cut-off ratio grades; oxide is defined at above 0.8, primary is defined below 0.2, and TMO is defined between 0.2 and 0.8. A widespread of ratios in the TMO could potentially over-smooth the estimate and more work is needed to control this effect. • The method of assigning bulk density values is similar to the 2020 Mineral Resource model. Direct estimation of dry bulk density values needs to be evaluated where enough bulk density data is available. • Limited number of samples within some of the lithology and fault subdomains have resulted in poor quality estimates. Further analysis on the potential combination between lithology and fault domains could improve the estimation.

4.1.3 Statement of Compliance with JORC Code Reporting Criteria and Consent to Release

This Mineral Resource statement has been compiled in accordance with the guidelines defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("2012 JORC Code").

4.1.3.1 *Competent Person Statement*

I, Jeremy Charles Witley, confirm that I am the Competent Person for the Kinsevere Mineral Resource section of this Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having five years' experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Fellow of The Geological Society of South Africa (Membership No. 60286) and I am a Registered Professional Natural Scientist (Geological Science) with the South African Council for Natural Scientific Professions (SACNASP) – Reg No 400181/05.
- I have reviewed the relevant Kinsevere Mineral Resource section of this Report to which this Consent Statement applies.

I am a full-time employee of The MSA Group (Pty) Ltd.

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Kinsevere Mineral Resource section of this Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in the supporting documentation relating to the Kinsevere Mineral Resources.

4.1.3.2 *Competent Person Consent*

Pursuant to the requirements Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

With respect to the sections of this report for which I am responsible – the Kinsevere Mineral Resources - I consent to the release of the 2022 Mineral Resources and Ore Reserves Statement as at 30 June 2022 Executive Summary and Technical Appendix Report and this Consent Statement by the directors of MMG Limited:

This signature was scanned for the exclusive use in this document – the *MMG Mineral Resource and Ore Reserve Statement as at 30 June 2022* – with the author's approval. Any other use is not authorised.

20/09/2022

________________________ Date: ________________________

Jeremy Charles Witley, BSc Hons (Mining Geology), MSc (Eng), Pr. Sci. Nat. (400181/05) FGSSA (60286)

This signature was scanned for the exclusive use in this document – the *MMG Mineral Resource and Ore Reserve Statement as at 30 June 2022* – with the author's approval. Any other use is not authorised.

Wony Diergaardt,
Johannesburg North

________________________ ________________________

Signature of Witness: Witness Name and Residence: (e.g. town/suburb)

4.2 Ore Reserves - Kinsevere

4.2.1 Results

The 2021 Kinsevere Ore Reserves is based on the 2022 Mineral Resources model as describe in Section 1, 2 and 3 above.

The 2022 Kinsevere Ore Reserves are summarised in Table 10.

Table 10 Kinsevere Ore Reserves tonnage and grade (as at 30 June 2022)

Kinsevere Ore Reserve

					Contained Metal		
Oxide/TMO Copper	**Tonnes (Mt)**	**Copper (% Cu)**	**Copper (AS % Cu)**	**Cobalt (% Co)**	**Copper ('000) t**	**Copper AS ('000) t**	**Cobalt ('000) t**
Proved	3.0	2.5	1.7	0.12	74	50	3
Probable	5.7	2.2	1.4	0.12	120	78	7
Total	**8.6**	**2.3**	**1.5**	**0.12**	**200**	**130**	**10**
Primary Copper							
Proved	1.9	2.3	0.2	0.21	44	4	4
Probable	16	2.2	0.2	0.10	340	25	15
Total	**18**	**2.2**	**0.2**	**0.11**	**390**	**29**	**19**
Stockpiles							
Probable	14	1.5	0.9	-	210	130	-
Total	**14**	**1.5**	**0.9**	**-**	**210**	**130**	**-**
Kinsevere Copper Total	**40**	**2.0**	**0.7**	**0.07**	**800**	**280**	**29**

Cut-off grades were calculated at a US$3.38/lb copper price and $20.60/lb Cobalt. They are based on a Net Value Script considering following:

- Gangue acid consumption
- Oxide Flotation Recovery
- Sulphide Flotation Recovery
- Roaster Recovery for Copper and Cobalt
- Cobalt Solution Recovery
- Cobalt Hydroxide Payables
- Oxide Leach Recovery

The cut-off grade approximates 1.1% Cu for Oxide and Transitional ex-pit material, 1.0% Cu for Primary Material and 0.9% Cu for Oxide existing stockpile reclaim.
Figures are rounded according to JORC Code guidelines and may show apparent addition errors.
Contained metal does not imply recoverable metal.

The main differences from the 2021 Ore Reserves are:

(i) Adopted copper price increased to US$3.38/lb from US$3.28/lb in 2021

(ii) Adopted cobalt price increased to US$20.60/lb from US$20.16/lb in 2021

(iii) Mine and stockpile depletion

(iv) Mine to Mill Reconciliation study, conducted in 2019, indicates that mining dilution is between 10 & 15% and ore loss between 10 & 15% (mining was paused in September 2020 and recommenced in May 2022). There is very little recent reconciliation data available since the 2019 reconciliation study:
  - Modelled planned Dilution:
    - Oxide 7%
    - Sulphide 3%
  - Modelled planned Ore Loss:
    - Oxide 6%
    - Sulphide 9%
  - Additional unplanned dilution and ore loss has been modelled at 5%, misallocation dilution is also considered for the Sulphide Processing circuit
  - Projected cash flows from Ore Reserves do not consider any existing (30 June 2022) rehabilitation liability.

4.2.2 Ore Reserves JORC 2012 Assessment and Reporting Criteria

The following information provided in Table 11 complies with the 2012 JORC Code requirements specified by "Table-1 Section 4" of the Code. Each of the items in this table has been summarised as the basis for the assessment of overall Ore Reserves risk in the table below, with each of the risks related to confidence and/or accuracy of the various inputs into the Ore Reserves qualitatively assessed.

Table 11 JORC 2012 Code Table 1 Assessment and Reporting Criteria for Kinsevere Ore Reserves 2022

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
Mineral Resource estimates for conversion to Ore Reserves	• The Mineral Resources are reported inclusive of the Ore Reserves. • The Ore Reserves includes Mineral Resources on stockpiles. • The sub-celled Mineral Resources block model named "KIN_MOR_2022_V1.bmf" and dated 25-05-2022 was used for dilution and ore loss modelling. The pit optimisation and designs were generated from the diluted mining model "kin_mor_2022_v1_dbm.dm". • Mineral Resources block model based on Ordinary Kriging interpolation has been applied for the estimation of all elements. It has a parent block size of 10m x 20m x 5m with sub blocking down to 2.5m. The mining model simulates a mining panel of 10m x 15m x 5m introducing localised dilution and ore loss. • All existing stockpiles have been considered for economic inclusion in the Mineral Resources and Reserves.
Site visits	• The Competent Person visited the site in July 2022 and is in regular contact with site personnel regarding operational performance. • The visit consisted of discussions with relevant people associated with Ore Reserves modifying factors including geology, grade control, mine-to-mill reconciliation, mine dilution and mining recovery, geotechnical parameters, mine planning and mining operations, metallurgy, tailings and waste storage, and environmental and social disciplines. The outcomes from the visit have confirmed a common understanding of assumptions, calculation of the cut-off grades and development of the Life-of-Asset mine plan.
Study status	• The current mine and processing plant configuration has been in operation since September 2011. Ore Reserves are based on a combination of actual historical performance and cost data, lab test work and metallurgical simulation. This data has been adapted to projected Life-of-Asset planning, incorporating the Kinsevere Expansion Project (KEP), which incorporates the feasibility study of the sulphide processing plant. • Life-of-Asset Reserve Estimates were produced as part of the MMG planning cycle. This Estimate informs the Ore Reserves – it demonstrates it is technically achievable and economically viable, while incorporating material Modifying Factors.
Cut-off parameters	• Breakeven cut-off grades (COG) were calculated at a US$3.38/lb copper price, $20.60/lb Co considering all known Copper and Cobalt mineral species. A variable gangue acid consumption is estimated using the equation GAC (kg/t) = 33.823 x %Ca + 2.713 x %Mg + 2.8. The following approximate COG's are applied: ○ 1.1% Cu for ex-pit Oxide and Transitional material ○ 1.0% for Primary material ○ 0.9% Cu for existing stockpile reclaim.

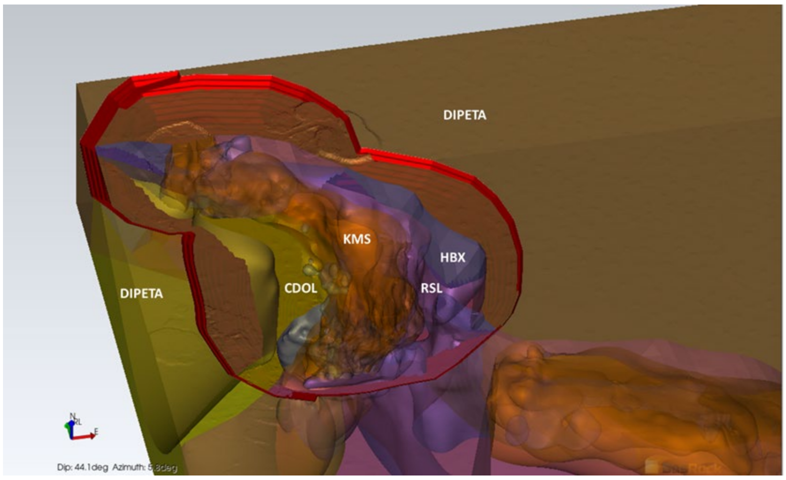
Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
	• The ex-pit COG estimates are based on a Net Value Script (NVS) calculation that incorporates commodity price assumptions, gangue acid consumption, recoveries and estimated payables; and costs associated with current and projected operating conditions. • The NVS routine identifies material that is both suitable and potentially economic for processing in the Mineral Resource Model. This material is then considered for inclusion in the Ore Reserves process. • For the cost assumptions please see the "Costs" section. • For the price assumptions please see the "Revenue factors" section.
Mining factors or assumptions	• The method for Ore Reserves estimation included: mine dilution modelling, pit optimisation, final pit and phase designs, consideration of mine and mill schedule, all identified modifying factors and economic valuation. • Kinsevere mine is an open pit operation that is mining and processing oxide copper ore. The operation uses a contract mining fleet of excavators and both rigid body and articulated dump trucks along with a fleet of ancillary equipment. • This mining method is appropriate for the style and size of the mineralisation. • The pit optimisation was based on a mining model based on the 2020 Mineral Resources block model, and the strategy for the final pit selection was based on a revenue factor 1. The RF 1 pit shell was used to best estimate and "waste strip efficient" final pit shell, considering cutback mining, and appropriate discounting of revenues and costs. Final pit designs incorporating further practical mining considerations, such as minimum mining width, were carried out using these optimisation shells. • Mining dilution is based on localised mining dilution modelling with an additional unplanned dilution and ore loss of 5% respectively (unplanned dilution and ore loss was 5% in the 2021 Ore Reserves). The dilution and ore loss modelling were designed to reflect historic reconciliation data (2020 reconciliation study) of areas that are reflective of future mining. The combination of the planned and unplanned dilution and ore loss, effectively result in a reduction in metal of approximately 10% compared with the Resource Model. • Minimum mining width (bench size) is typically in excess of 45m but is ~35m in some isolated areas during stage development. • No Inferred Mineral Resources material have been included in the optimisation and/or Ore Reserves reporting. • All required infrastructure is in place for processing Oxide Copper bearing minerals only (excluding tailings dam expansions). Infrastructure required for the Sulphide plant is outlined in the Kinsevere Expansion Project (KEP) study. Mining rates are planned to stay relatively constant and is within the capacity of the proposed mining contractor capability. • The slope guidelines used for the 2021 Kinsevere Ore Reserves are as follows:

Section 4 Estimation and Reporting of Ore Reserves

Criteria	Commentary

Domain	Weathering Code	BFA (Max °)	Bench Height (m)	Berm Width (m)	IRA (°)	Stack
All	Completely Weathered (W4)	50	10	6	35	
	Highly Weathered DIP West (W3)	45	10	9.5	27	
	Highly Weathered Other (W3)	50	10	9	30	
RAT_HBX	Moderately Weathered (W2)	70	15	7.25	50	
	Slightly Weathered to Fresh (W1, W0)	80	20	13.25	50	
RAT_RSL	Moderately Weathered (W2)	70	15	7.25	50	
	Slightly Weathered to Fresh (W1, W0)	80	20	13.25	50	
SDOL	Moderately Weathered (W2)	70	15	7.25	50	
	Slightly Weathered to Fresh (W1, W0)	80	20	13.25	50	
SD	Moderately Weathered (W2)	70	15	9.5	45	
	Slightly Weathered to Fresh (W1, W0)	80	20	13.25	50	
DIP	Moderately Weathered (W2)	70	12	7.25	50	
	Slightly Weathered to Fresh (W1, W0)	80	20	13.25	50	

  - These guidelines take into account new mapping information of exposures at Central East, as well as updated logging and domain interpretation in Central Pit.
  - 2022 guidelines remain unchanged for the Kinsevere Hill North and Kinsevere Hill South pits, which take into account observed performance of the current exposures.
  - Inter-ramp and overall slope design criteria have been since 2019 from High to Medium Consequence of Failure while further water and blast control measures are implemented i.e. inter ramp and overall slope factors of safety from limit equilibrium analysis are in excess of 1.2 and 1.3, respectively. This factor of safety was decreased from 1.3 and 1.2 in 2020, as water and blast control measures were implemented.
- The design sectors highlighted in the table above can be seen in the figure below:



  - These guidelines take into account observed performance of the current exposures at Kinsevere and potential failure modes that could occur at bench, inter-ramp and overall slope scale at Kinsevere.

Metallurgical factors or assumptions

Kinsevere Acid Leach Process

- Kinsevere is an operating mine. The existing metallurgical process is a hydrometallurgical process involving grinding, tank leaching, counter-current decantation (CCD) washing, solvent extraction and electrowinning.
- The acid leach process has been operating successfully since start-up in September 2011.

Section 4 Estimation and Reporting of Ore Reserves

Criteria	**Commentary**

- Copper recovery is determined by the equation:

  *Cu recovery (%) = (0.963*CuAS)/TCu*

  where CuAS refers to the acid soluble copper content of the ore which is determined according to a standard test. The CuAS value has historically been around 80 to 90% of the total copper value though the exact percentage varies with the ore type. Much of the non-acid soluble copper is present in sulphides which are not effectively leached in the tank leaching stage.
- The reconciliation between expected and actual recovery is checked each month. The following table summarizes the outcomes for the last eight quarters.

Period	**Recovery of Acid Soluble Copper (%)**	
	Predicted	**Actual**
Q2 2021	96.3	96.4
Q3 2021	96.3	97.1
Q4 2021	96.3	96.7
Q1 2022	96.3	96.2

- The main deleterious components of the ore are carbonaceous (black) shales which increase solution losses in the washing circuit and dolomite which increases acid consumption in the leaching process.
- The effect of black shale is currently controlled by blending which is used to limit the percentage of this component in the feed to less than 30%, it is planned that this will be increased to 50% over the coming 3 years.
- Total gangue acid consumption has been estimated based on the following equation GAC (kg/t) = 33.823 x %Ca + 2.713 x %Mg + 2.8.
- To prevent process issues, ore feed to the mill is blended to ensure the gangue acid consumption does not exceed 35kg/t.
- For Ore Reserves, a processing capacity of approximately 2.4Mtpa of ore (2.2Mpta when the Sulphide plant is operating) and an electrowinning capacity of 80ktpa of copper cathode has been assumed. Both mill throughput and cathode production rates have been demonstrated as sustainable.
- Kinsevere mine does not currently produce any by-products.

Kinsevere Expansion Project (KEP)

- The KEP study proposes to expand the current acid leach process to treat sulphide, transition and oxide ore, as well as recover cobalt.
- The Kinsevere processing facility upgrades required for the project are:
  - Oxide pre-flotation circuit and leach tank modifications for 2.2 Mtpa ore treated
  - Once Oxide Ore is exhausted, it is planned that the Oxide grinding circuit be modified (i.e. Sizer replaced with a Jaw Crusher and an additional Ball Mill be

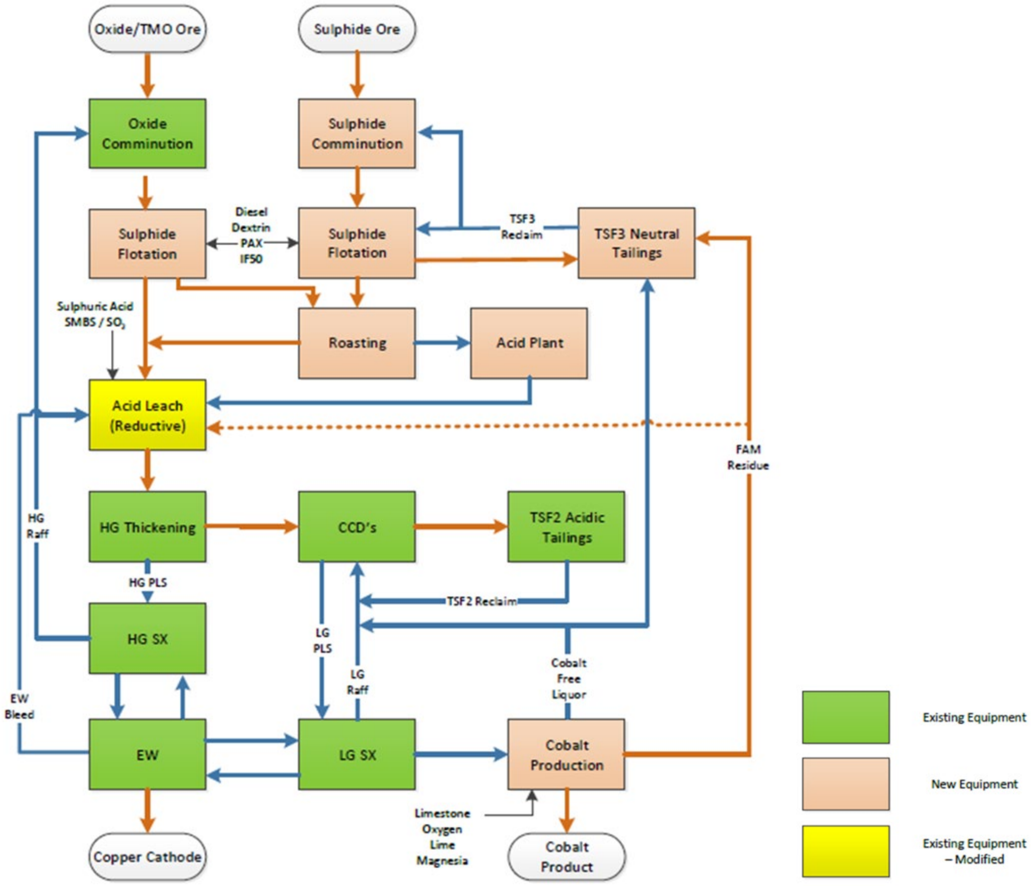
Section 4 Estimation and Reporting of Ore Reserves

Criteria	Commentary

installed into the Oxide Circuit) to accommodate the processing of Sulphide Ores.

  - It has been estimated that this modified oxide circuit will be capable of processing 1.3Mtpa of Sulphide Ore.
  - Oxide leach upgrades to convert to reductive leach conditions.
  - Sulphide concentrator for 2.2 Mtpa ore treated.
  - Roaster circuit including off-gas cleaning, acid plant and concentrate storage.
  - Cobalt recovery circuit to produce high grade cobalt hydroxide.
  - SX plant modifications.

The block flowsheet is given below:



- The implementation schedule is based on MMG Board approval and release of funding for implementation which commenced in the first half of 2022.
- The estimated plant recoveries are as follows:

Section 4 Estimation and Reporting of Ore Reserves

Criteria | **Commentary**

Recovery Description	Unit	Comment	
Sulphide Circuit Flot Copper Recovery (Ratio<0.4 / 0.2 - plan / target)	%	Calc	>10% ASCu/Tcu; the recovery = 96 - 94 * ASCu/TCU <10% ASCu/Tcu; the recovery = 94 -57 * ASCu/Tcu
Sulphide Circuit Flot Cobalt Recovery (Ratio<0.4 / 0.2 - plan / target)	%	Calc	>10% ASCu/Tcu; the recovery = 96 - 94 * ASCu/TCU - 2% <10% ASCu/Tcu; the recovery = 94 -57 * ASCu/Tcu - 2%
Oxide Circuit Flotation Copper Recovery (Ratio<0.4 / 0.2 - plan / target)	%	Calc	72% * (CuT - ASCu)
Oxide Circuit Flotation Cobalt Recovery (Ratio<0.4 / 0.2 - plan / target)	%	30%	
Leach Copper Recovery (Includes Recovery Losses)	%	98	Less Soluble Losses
(Oxide Feed) Leach Cobalt Recovery (Less Soluble Losses)	%	35	(70% Cobalt / Oxide only - i.e. 12 months prior to commissioning of the Sulphide plant)
Roaster Recovery - Cu Conversion	%	95	
Roaster Recovery - Co Conversion	%	92.5	

- Plant misallocation has been considered, the flowsheet allows for the recovery of any Sulphides that may inadvertently arrive in the Oxide Circuit. However, any oxide material reporting to the Sulphide Circuit will inevitably be lost to tailings. This "misallocation" has been considered as part of the mine planning:
    - Planned Misallocation Modelling:
      Sulphide Circuit where the Ratio CuAS / TCu < 0.4
      Oxide Circuit where the Ratio CuAS / TCu >= 0.4
    - Operational Target:
      Sulphide Circuit where the Ratio CuAS / TCu < 0.2
      Oxide Circuit where the Ratio CuAS / TCu >= 0.2

Environmental

- Geochemical analysis of mine waste material over a two year period (2017 onwards) has been reviewed to confirm the classification of Potential Acid Forming (PAF) material. The review resulted in a change to the PAF classification. The updated classification has reduced the volume of potentially acid generating material (separating non-acid generating materials from potentially acid generating materials), thus preserving clean waste for construction and rehabilitation requirements.
- Surface water management plans for the short and medium term have been completed and are progressively being implemented. Maintenance of infrastructure will be continuing throughout the 2022 dry season.
- Existing tailings storage facility (TSF 2) has design capacity to meet the 2022 Ore Reserves requirements. The TSF 2 is currently at RL 1290.6 it is planned to be elevated a further 14m.
- A new facility (TSF 3) is planned for the KEP.

Infrastructure

- The Kinsevere mine site is well established with the following infrastructure in place:
    - The Oxide processing plant is operational.
    - Labour is mostly sourced from Lubumbashi and surrounding villages with some expatriate support. There is an existing accommodation facility onsite.
    - There is sufficient water for the processing.
    - Copper cathode is transported off-site by truck.
    - Site has an access road that is partially sealed.
    - There is power supply from the national grid and from onsite generators.

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
	○ The Ore Reserves do not require any additional land for expansion. ○ Tailings Storage Facility in place and future lifts are planned for. • Grid power in country can be intermittent; mitigation management is through diesel-based power generation. Future grid power availability is forecast to improve. • Timely dewatering of the mining areas continues to be an important aspect of mining operations. **Kinsevere Expansion Project (KEP)** • Tailings storage facility (sulphide tailings) including tailings and decant pipelines • Reagents storage and utilities; power, water, air, sewer • Operation buildings and services relocations • Roads and drainage upgrades
Costs	• Kinsevere is an operating mine, historical costs have been used to inform the 2022 Kinsevere Budget (January 2022 to December 2022), with the exception of the contract mining costs and the Sulphide Processing Plant costs. • Mining costs are based on contract mining costs, tendered in 2021. Given that mining operations have only recently recommenced (May 2022), various sensitivities have been tested to ensure that the Reserve Estimate continues to be economic with potential delays in the commencement of Sulphide processing. • The Sulphide Processing Plant costs are based on the most recent feasibility study (KEP), consisting of independent estimates from two separate engineering houses. • Transportation charges used in the valuation are based on the actual invoice costs that MMG are charged by the commodity trading company per an existing agreement. • Royalties' charges have been considered, approximating 6% of the Copper revenue and 10% of the Cobalt revenue. • The processing costs include calculated gangue acid consumption. • The final product contains no deleterious elements. • US dollars have been used thus no exchange rates have been applied. • Weathering profiles have been used to model in-pit blasting costs. • Since the final Copper product is copper cathode (Grade A non-LME registered) there are no additional treatment, refining or similar charges. The final product for Cobalt, is Cobalt Hydroxide, payability, transport, export duty, customs clearance, agency fees and freight have been estimated and incorporated. • Sustaining capital costs have been included in the pit optimisation. The sustaining capital costs are principally related to the tailing's storage facility lift construction and the process plant. The inclusion or exclusion of these costs in the Ore Reserves estimation is based on accepted industry practice. • A cash flow model was produced based on the mine and processing schedule and the aforementioned costs. • The Ore Reserves estimation has been based on the aforementioned costs.

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
Revenue factors	• For cost assumptions see section above – "Costs" • The assumed long-term copper and cobalt price is US$3.38/lb and $20.60/lb respectively. These prices are used to inform the cut-off parameters (see cut-off section above). These prices are provided by MMG corporate, approved by the MMG Board, and are based on external company broker consensus and internal MMG analysis. • The current practise is to process Black Shale material at a maximum blend of 30% of the total feed. Internal studies are currently in progress, they identify opportunities whereby black shale is proposed to be process up to 50% of the total feed by Q3 2023.
Market assessment	• MMG considers that the outlook for the copper and cobalt price over the medium and longer term is positive, supported by further steady demand growth. • Global copper consumption growth will continue to be underpinned by rising consumption in China and the developing countries in Asia as these nations invest in infrastructure such as power grids, commercial and residential property, motor vehicles and transportation networks and consumer appliances such as air conditioners. • Cobalt has received considerable attention in the past decade or so due to its importance in the rechargeable battery industry, most notably with the increase in the electric car and related industries. • Global copper and cobalt demand will also rise as efforts are made to reduce greenhouse gas emissions through increased adoption of renewable energy sources for electricity generation and electric vehicles for transportation. • Supply growth is expected to be constrained by a lack of new mine projects ready for development and the requirement for significant investment to maintain existing production levels at some operations. • There is a life of mine off-take agreement with a trading company in place for all Kinsevere's copper cathode production. The off-take arrangement has been in place since the commencement of cathode production at site and has operated effectively. There is no reason to expect any change to this in future.
Economic	• The costs are based on historic actuals and estimated Sulphide Plant feasibility study operating costs, the 2022 Kinsevere Budget and tendered contractor mining costs. • Revenues are based on historic, contracted realised costs and the feasibility study estimates for Cobalt. Copper and Cobalt prices are based on MMG's short term pricing forecast (2021 to 2025) with a long-term forecast of $3.38/lb Copper and $20.60/lb Cobalt. • The Ore Reserves financial model demonstrates the mine has a positive NPV, assuming existing rehabilitation liability costs are treated as sunk. • The discount rate is in line with MMG's corporate economic assumptions and is considered to be appropriate for the location, type and style of operation. • Standard sensitivity analyses were undertaken for the Ore Reserve work and support that the Ore Reserve estimate is robust.

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
Social	• Social and Security teams are working together to mitigate security threats resulting from theft and other illegal activities by engaging the community to raise awareness of issues and garner support, improving security at the site. • There were some incursions during 2021. Officials continue to be engaged in the management of artisanal miners from the region and site. Improved security management has been implemented in response to incursions. • There was in increase in children entering site. The Social Development team, authorities and community chiefs continue to engage to address this issue and training programs were run through the schools to educate children on the dangers and risks they could be exposed to. • With respect land access, the Social Development Team together with Administrative authorities of the Kipushi Territory have surveyed the land occupancy on the PE 7274 to relocate farmers and pay compensation before the end of 2022. The TSF 3 construction is planned in this area during the 2022 calendar year. • The Social Development team continue to engage with Community leaders and government representatives regarding the MMG Social Development Plan and governance and distribution of funds by the Cashier de' Charges to better direct the funds to those in need.
Other	• MMG has a Contrat d'Amodiation (Lease Agreement) with Gécamines to mine and process ore from the Kinsevere Project until 2024. A renewal application process for 15-year extension has been submitted to DRC regulatory at least 1 year and no more than 5 years before the expiry date. • The PE 528 permit covers the three major deposits of Tshifufiamashi, Tshifufia and Kinsevere Hill/Kilongo. • A Contrat d'Amodiation is provided for under the DRC Mining Code, enacted by law No 007/2002 of July 11, 2002. • A conversion of the adjacent_PR7274 to an exploitation permit was completed in 2018. Tenement amalgamation (of PE528 and PE7274)_was completed in early March 2019, with PE7274 incorporated into PE528.
Classification	• The Ore Reserves classification is based on the JORC 2012 Code. The basis for the classification was the Mineral Resources classification and Net Value cut-off grade. The ex-pit material is classified as Measured and Indicated Mineral Resources, has a cut-off value calculated using a Net Value Script (NVS). It is demonstrated to be economic to process and is classified as Proved and Probable Ore Reserves respectively. • Existing stockpile material at Kinsevere is classified as Indicated. Indicated Mineral Resources above 1.0% Cu for Primary and 0.9% Cu for TMO/Oxide material, is demonstrated to be economic to process, and is classified as Probable Ore Reserves. The Resource confidence level of the Cobalt grade in the existing stockpiles is of an unclassified status and has therefore not been included in the Reserve estimate. • The Ore Reserves do not include any Inferred Mineral Resources (metal).

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
Audit or Reviews	• An external audit was completed in 2020 on the 2020 feasibility study. The work was carried out by AMC Consultants and subsequently by Nerin Institute of Technical Design. Whilst some minor improvements were suggested, no material issues were identified. • The next external Ore Reserves audit is planned for completion in 2023 on the 2022 Ore Reserves.
Discussion of relative accuracy/ confidence	• The most significant factors affecting confidence in the Ore Reserves are: ○ Mining Dilution and Ore Loss. ○ Existence of Karst features, with respect to perched water and impacts to mining Dilution and Ore Loss. ○ Increase in operating costs for mining and processing. ○ Cobalt process recovery for TMO/Oxide material, which has been revised following further test work to 30% cobalt flotation recovery, 35% cobalt leach extraction for 65% total extraction (was 75% total). ○ Cobalt process extraction in leach with SMBS prior to commissioning the sulphide project was revised to 55% for ASCu/TCu > 0.65 (was 70%). ○ Geotechnical risk related to slope stability. ○ Effective management of both ground and surface water. ○ The ability to increase the proportion of Black shale material in the plant feed, without negatively impacting the Plant Performance.

4.2.3 Expert Input Table

A number of persons have contributed key inputs to the Ore Reserves determination. These are listed below in **Error! Reference source not found.**.

In compiling the Ore Reserves the Competent Person has reviewed the supplied information for reasonableness but has relied on this advice and information to be correct.

Table 12 Contributing experts – Kinsevere Mine Ore Reserves

EXPERT PERSON / COMPANY	AREA OF EXPERTISE
Jeremy Witley, BSc Hons (Mining Geology), MSc (Eng), Pr. Sci. Nat. (400181/05) FGSSA (60286), The MSA Group	Mineral Resources model Stockpile Tonnes and Grade
Dr. Kevin Rees, Principal Metallurgist Mining One Consultants (Melbourne)	Metallurgy
Jeff Price, Principal Geotechnical Engineering, MMG Ltd (Melbourne)	Geotechnical parameters
Dean Basile, Principal Mining Engineer, Mining One Consultants (Melbourne)	Mining costs, pit designs, mine and mill schedules, Ore Reserves estimate
Kinsevere Geology department	Production reconciliation
Knight Piésold	Tailings dam design & Capacity
Jason Duffin, Superintendent Business Evaluations and Business Improvements Operations, MMG Ltd	Economic Assumptions and evaluation
Hugues Munung, Environment and Social Performance, MMG Ltd (Kinsevere)	Environment & Social
Hong Yu, Head of Marketing, MMG Ltd (Beijing)	Marketing

4.2.4 Statement of Compliance with JORC Code Reporting Criteria and Consent to Release

This Ore Reserve statement has been compiled in accordance with the guidelines defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("2012 JORC Code").

4.2.4.1 Competent Person Statement

I, Dean Basile, confirm that I am the Competent Person for the Kinsevere Ore Reserves section of this Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having five years' experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Member of The Australasian Institute of Mining and Metallurgy
- I have reviewed the relevant Kinsevere Ore Reserves section of this Report to which this Consent Statement applies.

I am a full time employee of Mining One Pty Ltd.

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Kinsevere Ore Reserves section of this Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to the Kinsevere Ore Reserves.

4.2.4.2 Competent Person Consent

Pursuant to the requirements Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

With respect to the sections of this report for which I am responsible – the Kinsevere Ore Reserves - I consent to the release of the 2022 Mineral Resources and Ore Reserves Statement as at 30 June 2022 Executive Summary and Technical Appendix Report and this Consent Statement by the directors of MMG Limited:

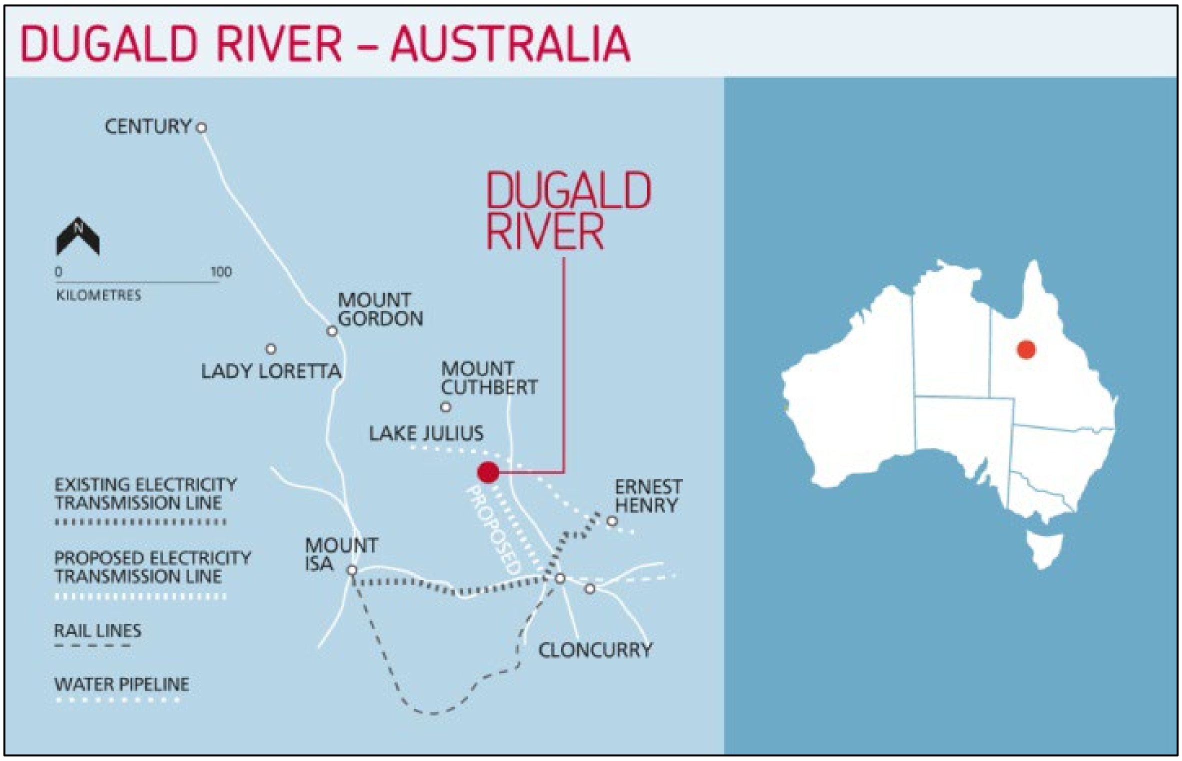
This signature was scanned for the exclusive use in this document – the *MMG Mineral Resource and Ore Reserve Statement as at 30 June 2022* – with the author's approval. Any other use is not authorised.	18/10/2022
Dean Basile MAusIMM(CP) (#301633)	Date:
This signature was scanned for the exclusive use in this document – the *MMG Mineral Resource and Ore Reserve Statement as at 30 June 2022* – with the author's approval. Any other use is not authorised.	Davron Lu Melbourne, VIC
Signature of Witness:	Witness Name and Residence: (e.g. town/suburb)

5 DUGALD RIVER MINE

5.1 Introduction and Setting

The Dugald River mine is located in northwest Queensland approximately 65km northwest of Cloncurry and approximately 85km northeast of Mount Isa (Figure 5-1). It is approximately 11km (by the existing access road) from the Burke Developmental Road, which runs from Cloncurry to Normanton. It is an underground zinc-lead-silver deposit and wholly owned by a subsidiary of MMG Limited.

Figure 5-1 Dugald River project location



5.2 Mineral Resources – Dugald River

5.2.1 Results

The 2022 Dugald River Mineral Resources are summarised in Table 13. The Mineral Resource has been depleted to account for mining of ore by way of underground development of ore drives and stope production. The 2022 Mineral Resource has been reported above an A$145/t NSR *(net smelter return)* cut-off.

Table 13 2022 Dugald River Mineral Resource tonnage and grade (as at 30 June 2022)

Dugald River Mineral Resource											
2022							**Contained Metal**				
	Tonnes (Mt)	Copper (% Cu)	Zinc (% Zn)	Lead (% Pb)	Silver (g/t Ag)	Gold (g/t Au)	Copper ('000)	Zinc ('000)	Lead ('000)	Silver (Moz)	Gold (MoZ)
Primary Zinc[1]											
Measured	12		13.5	2.2	71			1,700	260	28	
Indicated	15		12.0	0.9	16			1,800	130	7.6	
Inferred	33		11.3	0.8	8			3,800	270	8.7	
Total	**61**		**11.9**	**1.1**	**23**			**7,200**	**660**	**44**	
Stockpiles											
Measured	0.02		9.9	1.6	40			2.2	0.4	0.03	
Total	**0.02**		**9.9**	**1.6**	**40**			**2.2**	**0.4**	**0.03**	
Total Primary Zinc	**61**		**11.9**	**1.1**	**23**			**7,200**	**660**	**44**	
Primary Copper[2]											
Inferred	4.5	1.5				0.1	68				0.02
Total	**4.5**	**1.5**				**0.1**	**68**				**0.02**
Dugald River Total							**68**	**7,200**	**660**	**45**	**0.02**

[1] $145/t NSR Cut-off, in-situ (less depletion and oxide material)

[2] 1% Cu Cut-off, in-situ (less depletion and oxide material)

Figures are rounded according to JORC Code guidelines and may show apparent addition errors.

Contained metal does not imply recoverable metal

5.2.2 Mineral Resources JORC 2012 Assessment and Reporting Criteria

The following information provided in Table 14 complies with the 2012 JORC Code requirements specified by "Table-1 Section 1-3" of the Code.

Table 14 JORC 2012 Code Table 1 Assessment and Reporting Criteria for Dugald River Mineral Resource 2022

<table>
<tr><th colspan="2">Section 1 Sampling Techniques and Data</th></tr>
<tr><th>Criteria</th><th>Commentary</th></tr>
<tr><td><i>Sampling techniques</i></td><td>

Diamond drilling (DD) methods of varying hole diameter sizes comprise most of the samples collected to define the mineralisation. DD core was sampled to geological contacts with average sample lengths being 1m through the mineralisation. The DD core, dependent on core size and type of drilling, was sampled either as whole core, or cut into ¾, ½, ¼ using a diamond core saw.
Approximately 10% of the dataset was sampled using RC drilling techniques although this was mostly confined to pre-collar surface drilling and generally from regions outside of the mineralised zone.
Approximately 25% of the total drilled meters were sampled.
The table below shows samples collected at Dugald River for use in the 2022 Mineral Resource by drill type, hole size and sample type.

<table>
<tr><th>Drill Type</th><th>Hole Size</th><th>Sample Type</th><th>Total Metres</th><th>% of Total</th></tr>
<tr><td>DD</td><td>PQ</td><td>Whole Core</td><td>254.8</td><td>0.15%</td></tr>
<tr><td></td><td></td><td>UNK</td><td>230.16</td><td>0.13%</td></tr>
<tr><td></td><td>PQ3</td><td>1/2 Core</td><td>27.09</td><td>0.02%</td></tr>
<tr><td></td><td></td><td>1/4 Core</td><td>7</td><td>0.00%</td></tr>
<tr><td></td><td>HQ</td><td>Whole Core</td><td>2040.83</td><td>1.18%</td></tr>
<tr><td></td><td></td><td>1/2 Core</td><td>992.34</td><td>0.57%</td></tr>
<tr><td></td><td></td><td>1/4 Core</td><td>295.63</td><td>0.17%</td></tr>
<tr><td></td><td></td><td>3/4 Core</td><td>396.28</td><td>0.23%</td></tr>
<tr><td></td><td></td><td>UNK</td><td>370.5</td><td>0.21%</td></tr>
<tr><td></td><td>HQ2</td><td>1/2 Core</td><td>5</td><td>0.00%</td></tr>
<tr><td></td><td>HQ3</td><td>1/2 Core</td><td>6202.33</td><td>3.57%</td></tr>
<tr><td></td><td>NQ</td><td>Whole Core</td><td>2963.4</td><td>1.71%</td></tr>
<tr><td></td><td></td><td>1/2 Core</td><td>206.2</td><td>0.12%</td></tr>
<tr><td></td><td></td><td>1/4 Core</td><td>42</td><td>0.02%</td></tr>
<tr><td></td><td></td><td>UNK</td><td>315.8</td><td>0.18%</td></tr>
<tr><td></td><td>NQ2</td><td>Whole Core</td><td>82932.01</td><td>47.77%</td></tr>
<tr><td></td><td></td><td>1/2 Core</td><td>54500.73</td><td>31.39%</td></tr>
<tr><td></td><td></td><td>1/4 Core</td><td>82.07</td><td>0.05%</td></tr>
<tr><td></td><td></td><td>UNK</td><td>188</td><td>0.11%</td></tr>
<tr><td></td><td>NQ3</td><td>Whole Core</td><td>6</td><td>0.00%</td></tr>
<tr><td></td><td></td><td>1/2 Core</td><td>1203.35</td><td>0.69%</td></tr>
<tr><td></td><td></td><td>UNK</td><td>157.8</td><td>0.09%</td></tr>
<tr><td></td><td>BQ/BQTK</td><td>Whole Core</td><td>216.86</td><td>0.12%</td></tr>
<tr><td></td><td></td><td>1/2 Core</td><td>113.65</td><td>0.07%</td></tr>
<tr><td></td><td>LTK60</td><td>Whole Core</td><td>3783.19</td><td>2.18%</td></tr>
<tr><td></td><td></td><td>1/2 Core</td><td>2902.67</td><td>1.67%</td></tr>
<tr><td></td><td>UNK</td><td>Whole Core</td><td>1553.4</td><td>0.89%</td></tr>
<tr><td></td><td></td><td>1/2 Core</td><td>457.5</td><td>0.26%</td></tr>
<tr><td colspan="2">Total DD</td><td></td><td>162,446.59</td><td>93.57%</td></tr>
<tr><td>RC</td><td>100mm & 150mm</td><td>Chips</td><td>1720</td><td>0.99%</td></tr>
<tr><td></td><td>5.75in</td><td>Chips</td><td>1659.6</td><td>0.96%</td></tr>
<tr><td></td><td>UNK</td><td>Chips</td><td>7792.3</td><td>4.49%</td></tr>
<tr><td colspan="3">Total RC</td><td>11,171.90</td><td>6.43%</td></tr>
<tr><td colspan="3">Grand Total</td><td>173,618.49</td><td>100.00%</td></tr>
</table>
</td></tr>
</table>

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	- Since 2010, samples are bagged, numbered, and dispatched to ALS Mt Isa laboratory. - Until 2016, the sample was jaw crushed, 50% split crushed using a Boyd crusher 70% nominal passing 2mm. - Since 2018 all core samples are jaw crushed then 100% re-crushed using a Boyd crusher, 70% nominal passing 3.15mm. - The sample is rotary split with 500-800g retained and pulverised to 85% passing 75µm. - All rejected material is collected and saved (Coarse – jaw crushed product, collected 2010 to 2016). - Pulps are then sent to ALS Brisbane, ALS Mt Isa or ALS Townsville (depending on assay routine) for analysis.
Drilling techniques	- The drillhole database used for the 2022 MRE consists of surface and underground exploration reverse circulation (RC) and diamond drilling (DD). - Drillholes used for the MRE have drilling dates after 1969 and continue until present. The drillhole database contains 3,778 drill holes which includes 591 holes drilled from surface (both RC and DD) and 3,187 from underground (all DD). - A summary of the total meters drilled by hole type and size is provided in the table below.

Drill Type	DD Core/ RC	Total Metres	% of Total
DD	PQ3	746.3	0.11%
	HQ	4187.48	0.64%
	HQ2	5	0.00%
	HQ3	10393.85	1.58%
	NQ	3586.1	0.54%
	NQ2	228537.66	34.70%
	NQ3	1375.37	0.21%
	BQ	206.86	0.03%
	BQTK	123.65	0.02%
	LTK60	6684.56	1.01%
DD Sub Total		**255846.83**	38.85%
RC	100mm&150mm	1720	0.26%
	5.75in	1659.6	0.25%
	NQ2	7802.3	1.18%
RC Sub Total		**11181.9**	1.70%
No Recovery	HQ	445.7	0.07%
	HQ3	7169.03	1.09%
	NQ2	217478.14	33.02%
	NQ3	736.44	0.11%
	LTK60	1351.94	0.21%
No Recovery Sub Total		**227181.25**	34.49%
No Sampling	5.75in	134.6	0.02%
	PQ3	881.2	0.13%
	HQ	2311.8	0.35%
	HQ3	5493.08	0.83%
	NQ	746.5	0.11%
	NQ2	163303.68	24.79%
	NQ3	19.75	0.00%
	BQTK	575.22	0.09%
	LTK60	2126.68	0.32%
No Sampling Sub Total		**175592.51**	26.66%
Grand Total		**658620.59**	100%

<table>
<tr><th colspan="2">Section 1 Sampling Techniques and Data</th></tr>
<tr><th>Criteria</th><th>Commentary</th></tr>
<tr><td></td><td>DD = Surface diamond drilling, RC= Reverse circulation drilling
• Some historical holes drilled prior to 1969, combined with other listed drill holes were not included in the data for the Mineral Resource due to poor sample quality and reliability.</td></tr>
<tr><td><i>Drill sample recovery</i></td><td>• Recovery recorded during core logging was generally close to 100%, with minor losses in broken / sheared and faulted ground.
• At times, triple tube drilling from surface has been used to maximise core recovery, but this is not common.
• RQD (rock quality designation) data was logged and recorded in the geological database to measure the degree of jointing, fractures, or core loss in the sample.
• Shearing and broken ground zones are located at the edges of the mineralisation zones and are not associated with locations of good grade intercepts. There is no relationship between core loss and mineralisation or grade - no sample bias has occurred due to core loss within broken/sheared ground.</td></tr>
<tr><td><i>Logging</i></td><td>• All core samples including RC pre-collars have been geologically logged (lithology, stratigraphy, weathering, alteration, geotechnical characteristics) to a level that can support the Mineral Resource Estimation (MRE).
• The logging captures both qualitative (e.g. rock type, alteration) and quantitative (e.g. mineral percentages) characteristics. Core photographs are available for most drill holes. All drill holes post-2008 have been photographed (wet and dry).
• Representative mineralised core is stored at -4°C in refrigerated containers to minimise oxidation for metallurgical testing. Representative non mineralised core is stored on pallets in the core storage yard.
• Currently, all drill holes are logged using laptop computers directly into the drillhole database. Logging has occurred in the past onto paper log-sheets and was then transcribed into the drillhole database.</td></tr>
<tr><td><i>Sub-sampling techniques and sample preparation</i></td><td><u>Diamond Drill Core Sampling</u>
• Prior to 2007, various sub-sample techniques and sample preparation techniques were used for DD including whole core sampling, ¾ (generally restricted to metallurgical samples) and ½ and ¼ (for general samples) core, where sample length is nominally 1 m.
• Since 2007 DD core was halved using a circular diamond saw, with density measurements taken before being sent for analytical testing. Sample lengths were cut as close to 1 m as possible while respecting geological contacts.
• From 2016 whole NQ core is sent for analysis for any in-fill drilling campaigns.
• Sample lengths average 1 m while still respecting the geological contacts (but can vary from 0.2 m to 1.5 m within the mineralised zone) were determined by lithology and visible mineralisation. Sample intervals were taken up to, but not across, lithological contacts, and obvious high-grade zones were sampled separately from lower grade intervals.</td></tr>
</table>

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	- This method ensured that as much information as possible was collected on the controls of the mineralisation while maintaining the standard sample length of 1 m. RC Sampling - The sample collection protocol for RC grade control drill holes has typically been as follows: ○ RC samples are collected from a cyclone at 2m intervals from pre–collar surface drilling. ○ If the sample was dry, the sample was passed through a riffle splitter and collected into a pre-numbered calico bag. ○ Residual material was sampled and sieved for chip trays and the remainder returned to the larger poly-weave bag. ○ The splitter was cleaned using compressed air or a clean brush and tapped using a rubber mallet. ○ If the sample was wet, then the sample was dried before being split according to the procedure above (for dry samples). ○ Samples from individual drill holes were sent in the same dispatch to the preparation laboratory. ○ Historical RC programmes were designed to test the 'un-mineralised' hanging wall material in DD pre-collars. 2 m bulk composites stored at the drill site were sampled using the spear method. - The vast majority of drillhole intersections are orthogonal to the mineralisation and as such are representative. Sample Preparation - Coarse Crusher and Pulp Duplicates and Laboratory Repeats - The sample preparation of RC chips and DD core adheres to industry good practice. - Since 2010, samples were bagged, numbered, and dispatched to ALS Mt Isa laboratory: ○ Prior to 2016, the sample was jaw crushed and 50% split. ○ Since 2016, all samples are jaw crushed, then 100% re-crushed using a Boyd crusher, 70% nominal passing 3.15mm. ○ The sample is rotary split with 500-800g subsample which is pulverised to 85% passing 75µm. ○ All reject material is retained and stored (Coarse – jaw crushed product, collected 2010 to 2016). ○ Pulps are despatched to ALS Brisbane or ALS Mt Isa for base metal analysis and to ALS Townsville for gold analysis. - For the 2007/2008 drilling campaigns, laboratory sample preparations involved drying, crushing (jaw and Boyd), and pulverising the ½ core sample to 85% passing 75µm. - No detailed information can be found for laboratory preparation prior to 2007 and it is assumed prevailing industry standard protocols were followed. - Different assay laboratories have been utilised over time and have been summarised in the table below (over 85% of all assays have been processed by ALS laboratories).

Section 1 Sampling Techniques and Data

Criteria — **Commentary**

Date Range	Laboratory	Number of Samples	% of Total
2021-2022	ALS	28,709	16.7%
2020-2021	ALS	22,749	13.2%
2019-2020	ALS	16,803	9.8%
2010 - 2019	ALS	79,828	46.4%
	GENALSYS	439	0.3%
2001 - 2009	ALS	13,142	7.6%
	UNK	96	0.1%
Prior to 2000	AAL	234	0.1%
	AMDEL	4551	2.6%
	Aminya	224	0.1%
	ANALABS	1,887	1.1%
	PILBARA	2,175	1.3%
	UNE	7	0.0%
	UNK	1,323	0.8%
Grand Total		**172,167**	

- Prior to 2015, duplicate samples were selected and sent to the laboratory at the end of the drilling campaign after the routine results had been reviewed.
- Since 2015, duplicate samples have been selected every 20th sample by the laboratory alternating between one taken at the crushing stage and the other taken at the pulverisation stage. These are then analysed at the same time as the routine samples.
- Batches that return standard values above three standard deviations (3SD) are failed and all or part of the batch is re-analysed by the Laboratory (ALS).
- Analysis of duplicate results against the original data demonstrates no major bias in the results except above 24% zinc where duplicate samples have returned slightly higher zinc values than the original however this is not considered significant.
- The sample types, nature, quality and sample preparation techniques are considered appropriate for the style of the Dugald River mineralisation (sediment/shear hosted base metal) by the Competent Person.

Quality of assay data and laboratory tests

- The assaying methods currently applied at Dugald River are ICP-MS with a 4-acid digest which is used for the analysis of Zn, Pb, Ag, Fe, S, Mn and Cu which are estimated in the Mineral Resource.
- Total carbon (TotC) is analysed by Leco furnace.
- All these analyses are considered total.

Base Metals

Since 2010, the four-acid digestion process has been used by ALS Brisbane and is as follows:

- Approximately 0.25g of sample weighed into a Teflon test tube.
- HNO3 and HClO4 are added and digested at 115°C for 15 minutes.
- HF is added and digested at 115°C for 5 minutes.
- The tubes are then digested at 185°C for 145 to 180 minutes which takes the digest to incipient dryness (digest is not "baked").
- 50% HCl is added and warmed.
- Made up to 12.5ml using 9.5ml 11% HCl.

- The table below summarises the analytical method and digestion used for all assays in the MRE. Most of the assays have been determined by using a four-acid digest with an ICP AES read.

Section 1 Sampling Techniques and Data

Criteria | **Commentary**

Base Metal Analysis	Analytical Method							Total
	AAS	ICP	ICPAES	ICPAESMS	ICPMS	XRF	UNK	
Four Acid	2,554	442	135,542	46				138,584
Aqua Regia	5		3,982		7			3,994
Aqua Regia Perchloric			4,290					4,290
Mixed Acid			301	165				466
Perchloric	151		88					239
UNK	231					7	1,609	1,847
Grand Total	**2,941**	**442**	**144,203**	**211**	**7**	**7**	**1,609**	**149,420**

Gold

- Gold assaying at Dugald River began in 1988 when the hanging-wall copper lode was first discovered.
- The different assay methods have been used and are summarised in the table below.
- Most gold assays were undertaken by ALS (Townsville) using a fire assay method with an AAS finish from a 50g charge used since 2008.
- At total of 483 gold assays were completed using Aqua Regia with an AAS read (completed between 1990 and 1996).

Laboratory	**Analytical Method**					**Total**
	AR-AAS	FA-AAS 30g	FA-AAS 40g	FA-AAS 50g	Unknown	
AAL	96					96
ALS		18,221		14,504		32,725
AMDEL	413	58	406	57	80	1,014
ANALABS	70	684		158		912
PILBARA				174		174
UNK					64	64
Total	**579**	**18,963**	**406**	**14,893**	**144**	**34,985**
Percentage of Total (%)	**1.65%**	**54.20%**	**1.16%**	**42.57%**	**0.41%**	**100.00%**

- There are no inherent sampling problems recognised.
- Measures taken to ensure sample representivity include orientation of the drill holes as close as practical to perpendicular to the known mineralised structure, and the collection and analysis of field duplicates.
- No geophysical tools, spectrometers or handheld XRF instruments have been used in the analysis of samples external to the ALS laboratory for the estimation of Mineral Resources.
- These assaying techniques are considered suitable for the Dugald River Mineral Resource.

Quality Assurance/Quality Control (QA/QC)

- Externally prepared certified reference materials (CRMs) and Blanks are submitted with every batch of samples.
- The performance of the CRMs and Blanks is monitored by the Dugald River Geology team.
- Prior to 2015, duplicate sampling was performed by selecting samples from the returned coarse rejects and resubmitting a subsample to ALS for analysis.

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	- Since 2015, duplicates are taken by the laboratory at every 20th sample, alternating between a duplicate taken at the primary crushing stage or at the pulverisation stage. - Sample batches that return values outside three standard deviations (3SD) are considered to have failed and all or part of the batch is re-analysed by the Laboratory (ALS). Blanks - Currently one Blank standard is used by ALS to monitor the performance of Zn, Pb, and Ag analyses. - Prior to March 2016, a non-certified Blank was submitted from material sourced from site. Certified Reference Materials - Several Certified Reference Materials (CRM) are used for Zn, Pb, Ag, Cu and Au. - The overall performance for the reporting period of the 2022 mineral resource is acceptable with all the CRMs reporting within three standard deviations for Zn, Pb and Ag.
Verification of sampling and assaying	- Verification of assay results was visually verified against logging and core photos by alternative company personnel. - No twinning of drill holes has occurred at Dugald River. However, close-spaced and crossing holes give comparable grade and width results. - Core logging data was recorded directly into a database (Micromine Geobank®) by experienced geologists (geological information such as lithology and mineralisation) and field technicians (geotechnical information such as core recovery and RQD). - Where data was deemed invalid or unverifiable it was excluded from the MRE. - No manual adjustments to the assay data have been performed during import into the Micromine Geobank® Database.
Location of data points	- All drill hole collars have been surveyed by licensed surveyors. Surface collars are surveyed in local mine grid and converted to MGA94 (pre-2020) and MGA2020 (post-2020). - Underground drill holes are marked up by surveying a collar pin at the designed collar point location which is supplied by the geologists in local mine grid. o Currently the drillers obtain their azimuth for the hole by utilising an azimuth aligner which is calibrated weekly using a test bed that has a fixed azimuth. o Upon completion of the drill program, the collars of each drill hole are surveyed in local mine grid and saved into the drill hole register spreadsheet for the geologists. o The equipment used underground to perform drillhole surveys is a Leica TS-15 total station (pre-2016) and a Leica TS-16 total station (post-2016). - For surface holes a collar point is marked out with a survey peg and then two pegs at the extremities of the drill pad are surveyed for the azimuth of the hole. o The drill rig lines up with these two pegs to drill on correct azimuth. o The drillers also use a true north azimuth tool to check the bearing.

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	○ The equipment used on surface for drill holes is a Trimble R8 RTK GPS. • Down-hole surveying has been undertaken using various methods including Eastman, Reflex and gyroscopic cameras. In general, a spacing of 30m down hole between survey readings is used. • Measurement interference due to the presence of magnetite and pyrrhotite has been an issue in past drilling programmes. ○ During the 2007/2008 drilling program routine survey checks were undertaken on the reflex survey camera using an aluminium calibration stand positioned in a known orientation. ○ Since 2008 all drill holes are gyroscopically surveyed. ○ North seeking azimuth tools are now used for all underground drilling surveys since 2018 and a calibrated fortnightly by the drill crew. • The grid system used is MGA94 (Pre-2020) and MGA2020 (Post-2020), the conversion to local mine grid is rotated and scaled. The grid transformation is undertaken using a formula provided by the onsite surveyors. • A LIDAR survey flown in 2010 is used for topographic control on holes drilled from surface. In the view of the Competent Person the LIDAR survey provides adequate topographic control.
Data spacing and distribution	• Drill spacing varies across the strike and dip of the mineralisation lode. The highest drill density in the ore body is 20m x 10m while the lowest drill density is greater than 100m x 100m spacing. • Locations drilled at 20m x 10m and up to 20m x 15m are adequate to establish both geological and grade continuity. Wider spaced drilling is adequate for definition of broader geological continuity but not sufficient for accurate grade continuity. • Underground mapping of faces is digitised and used in the interpretation and wire-framing process. • Drill hole data is concentrated within the upper 500m of the Mineral Resource with broader-spaced drilling at depth, due to the access restraints, mine schedule requirements and costs involved in drilling deeper sections. • Drill spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the MRE procedure and classification applied. • Samples are not composited prior to being sent to the laboratory for analysis.
Orientation of data in relation to geological structure	• Geological mapping (both underground and surface) and interpretation show that the mineralisation is striking north south and dips between 85 and 45 degrees towards the west. • Drilling is conducted on east-west and west-east directions to intersect mineralisation across-strike. • The orientation of underground drill holes is no greater than 40° from orthogonal to the mineralisation and is therefore not considered to be introducing bias to the sampling. • Drilling orientation is not considered to have introduced sampling bias. Drill holes that have been drilled down dip and sub-parallel to the mineralisation have been excluded from the estimate.

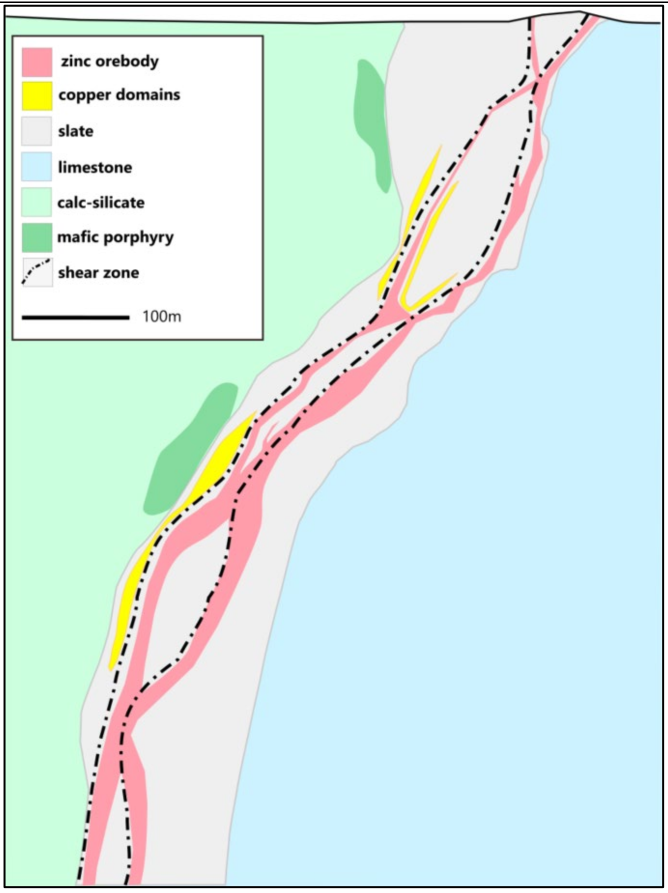
Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
Sample security	• Measures to provide sample security include: ○ Adequately trained and supervised sampling personnel. ○ Well maintained and ordered sampling sheds. ○ Cut core samples stored in numbered and tied calico sample bags. ○ Calico sample bags transported by courier to assay laboratory. ○ Assay laboratory checks of sample dispatch numbers against submission documents. • Assay data is returned as a .sif file via email and processed via the MMG assay loading software.
Audits or reviews	• The Dugald River database has been housed in various SQL databases. iOGlobal managed the database until the end of 2009 when the database was transferred and migrated to an MMG database using the Micromine Geobank® software. ○ Internal audits and checks were performed at this time. Any spurious data was investigated and rectified or flagged and excluded. • No external independent audits have been performed on the database. • No external independent audits have been performed on the sampling techniques or the database. • Both ALS Mount Isa and Brisbane laboratories are audited on an annual basis by MMG personnel. From the most recent audit there were no material recommendations made.

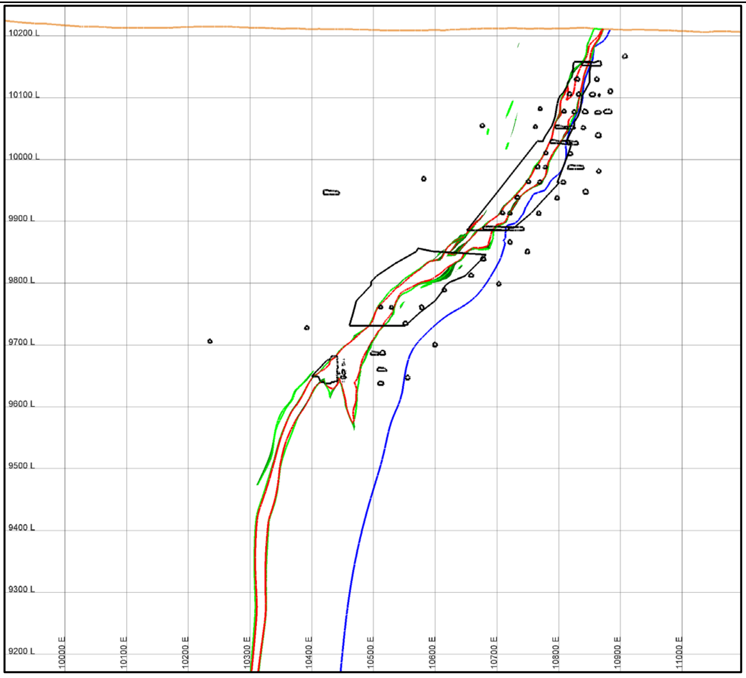
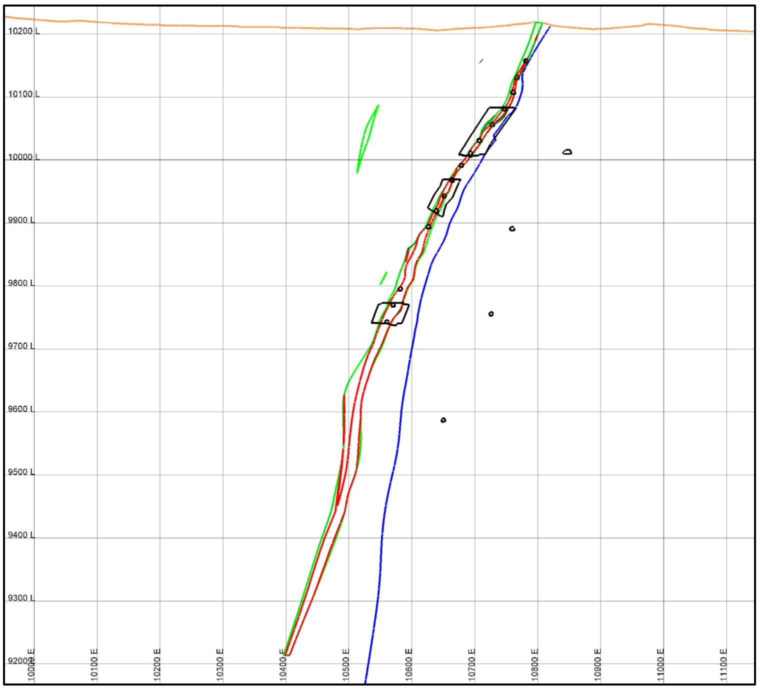
Section 2 Reporting of Exploration Results	
Criteria	**Commentary**
Mineral tenement and land tenure status	• The Dugald River Mining Leases are wholly owned by a subsidiary of MMG Limited. • MMG holds one exploration lease and one mineral development lease in addition to the 40 mining leases on which the Dugald River Mineral Resource is located. EPM12163 consists of 3 sub-blocks and covers an area of 9.6 km^2 to the west of the Dugald River deposit. ML2479 overlaps the eastern area of the EPM12163. The list of leases includes: ○ ML2467-ML2471 ○ ML2477-ML2482 ○ ML2496-ML2502 ○ ML2556-ML2559 ○ ML2596 ○ ML2599 ○ ML2601 ○ ML2638 ○ ML2684-ML2685 ○ ML7496 ○ ML90047 ○ ML90049-ML90051 ○ ML90211-ML90213 ○ ML90218 ○ ML90220 ○ ML90230

Section 2 Reporting of Exploration Results	
Criteria	**Commentary**
	○ ML90237 • There are no known impediments to operating in the area.
Exploration done by other parties	• The History of the Dugald River zinc-lead deposit is summarised as follows: ○ Discovered in 1881, the first drilling programme in 1936 comprised three drill holes. The maiden Mineral Resource was reported in 1953 by Zinc Corporation. Drilling continued from 1970 through 1983 totalling 28 drill holes. CRA then re-estimated the Mineral Resource in 1987. Between 1989 and 1992 a further 200 drill holes were drilled, resulting from the discovery of the high-grade, north plunging shoot. Infrastructure, metallurgical and environmental studies were undertaken during this period. Between 1993 and 1996 irregular drilling was focused on the delineation of copper mineralisation in the hanging wall. In 1997 the project was transferred to Pasminco, which had entered a joint venture with CRA in 1990. Recompilation of the database, further delineation drilling, metallurgical test work, and the check assaying of old pulps was completed. Continued drilling between 2000 and 2009 with subsequent metallurgical studies culminated in a Feasibility Study. Structural analysis and a focused review on the northern copper zone in 2010 were completed. In 2011 the decline commenced which resulted in trial stoping. In 2014 some underground development was completed and drilling focused on confirming and extending continuity of the mineralisation within the Dugald River lode.
Geology	• The Dugald River deposit is located within a 3 to 4 km wide north-south trending high strain domain named the Mt Roseby Corridor. The Mt Roseby Corridor has experienced complex polyphase deformation and metamorphism during the Isan Orogeny, which has resulted in widespread alteration and transposition of both stratigraphy and pre-existing structural fabrics. • The Mt Roseby Corridor is bordered to the west by the Knapdale Quartzite and the east by the Mt Rose Bee Fault. The Knapdale Quartzite forms a prominent range of hills within the local area. • The Mt Roseby corridor is comprised of the Mt Roseby Schist Formation that includes the local hanging wall Calc-silicates, Dugald River Slate (DRS) and the Footwall Limestone. • The DRS hosts the Dugald Lode. The DRS are metasomatised calcareous to carbonaceous slates like the Footwall Limestone and interpreted as part of the Lady Clayre Dolomite package. • The Dugald Lode is hosted within in a north-south shear zone that dips steeply to the west. The lode and its alteration halo transect and crosscut the strike of the slate sequence at a low angle. A HW lens can be seen splitting from the main orebody and anastomoses due to the influence of graphitic shears. • Lithological codes used to subdivide the Dugald Lode sequence are based on the primary mineralogy and/or distinguishing features, which are most often a product of alteration • All significant zinc-lead-silver mineralisation is restricted to the main lens with the hanging wall and footwall lenses being predominantly zinc mineralised. Three main mineralisation textures/types are recognised, including banded, slatey breccia, and massive breccia.

Section 2 Reporting of Exploration Results	
Criteria	**Commentary**
	- The main Dugald Lode is hosted within a major N-S striking steeply west dipping shear zone which cross cuts the strike of the Dugald River Slate stratigraphy from HW to FW at shallow depths and to the north. - Interpretations from 2019 have shown that the geometry, location and distribution of the zinc-lead-silver mineralisation is governed by boudinage and explains the distribution and tenor of the hanging wall and footwall lenses. - The geometry of the deposit consists of the boudinage main lens, which pinches and swells in thickness along strike and at depth. - It is recognised that the previously modelled hanging wall and footwall domains are part of the main lens which anastomoses, splits and merges. All zinc and associated lead-silver mineralisation are governed by this geometry. - The mineralogy of the Dugald lode is typical of a slate-hosted base metal deposit. The main sulphide minerals are sphalerite, pyrite, pyrrhotite and galena, with minor arsenopyrite, chalcopyrite, tetrahedrite, pyrargyrite, marcasite and alabandite. - The gangue within the lode is composed of quartz, muscovite, carbonates, K-feldspar, clays, graphite, carbonaceous matter and minor amounts of calcite, albite, chlorite, rutile, barite, garnet, and fluorite. - The mineralised zone extends approximately 2.4 km in strike length and up to 1.4 km down dip.
Drillhole Information	- 3,778 drill holes and associated data are held in the database (combination of RC and DD). - Drillholes used for the Mineral Resource Estimate have drilling dates after 1969 and continue until present. The drillhole database contains 3,778 drill holes, which includes 591 holes drilled from surface (both RC and DD), and 3,187 from underground (all DD). - The Mineral Resource Estimate and associated vertical sections and plans provided in this report provide sufficient information to give context to the exploration results. Therefore, a tabulation of each induvial hole is not considered material to the understanding of these results.
Data aggregation methods	- This is a Mineral Resource Statement and is not a report on exploration results hence no additional information is provided for this section. - No metal equivalents were used in the Mineral Resource estimation. However, the Mineral Resource has been reported above an A$145 NSR calculated cut-off.
Relationship between mineralisation widths and intercept lengths	- Mineralisation true widths are captured by three-dimensionally modelled wireframes with drill hole intercept angles ranging from 90° to 40°. - The true thickness of the majority of the Mineral Resource is between 3m and 30m with the thickest zones occurring to the south of the deposit.

Section 2 Reporting of Exploration Results

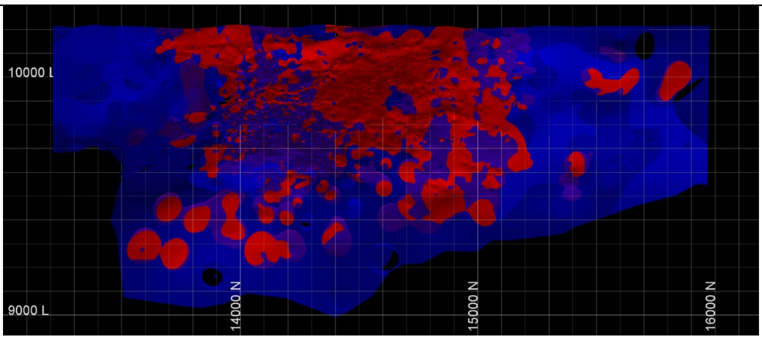
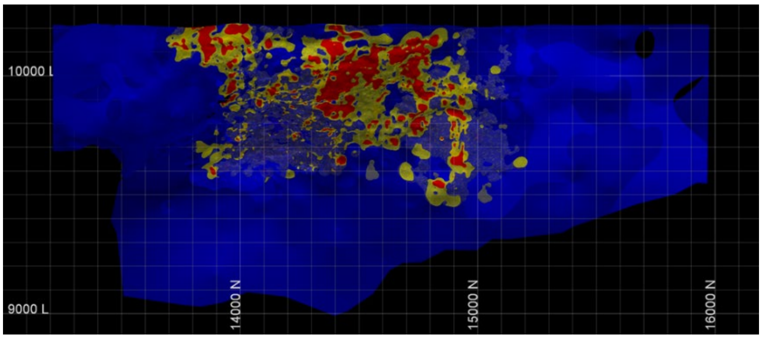
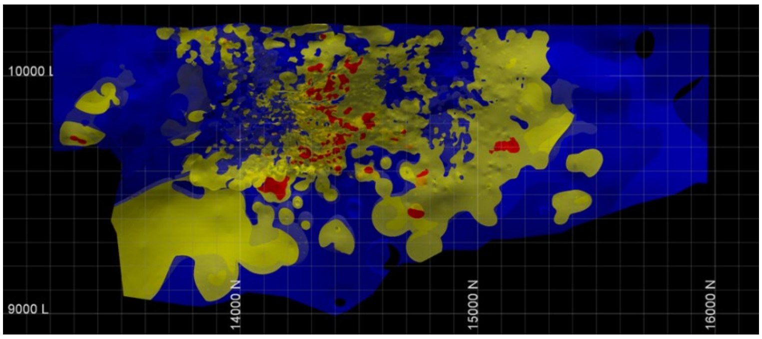
Criteria	Commentary
Diagrams	 **Schematic cross section looking north – showing thickness variations and distribution**

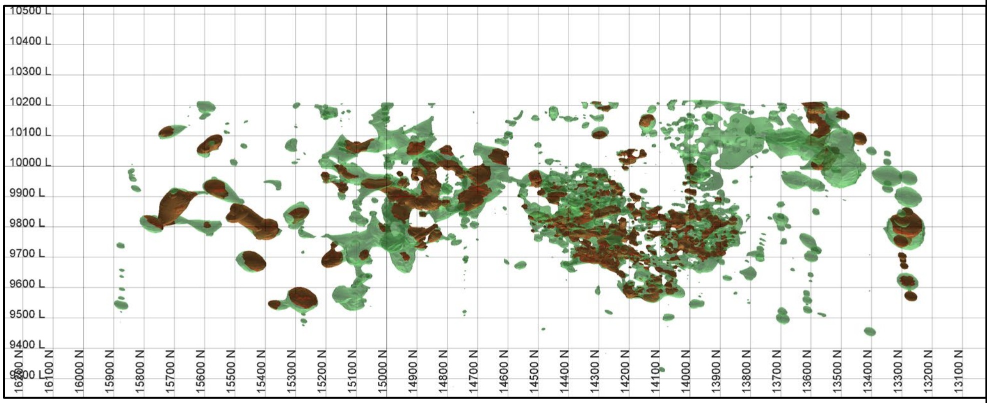
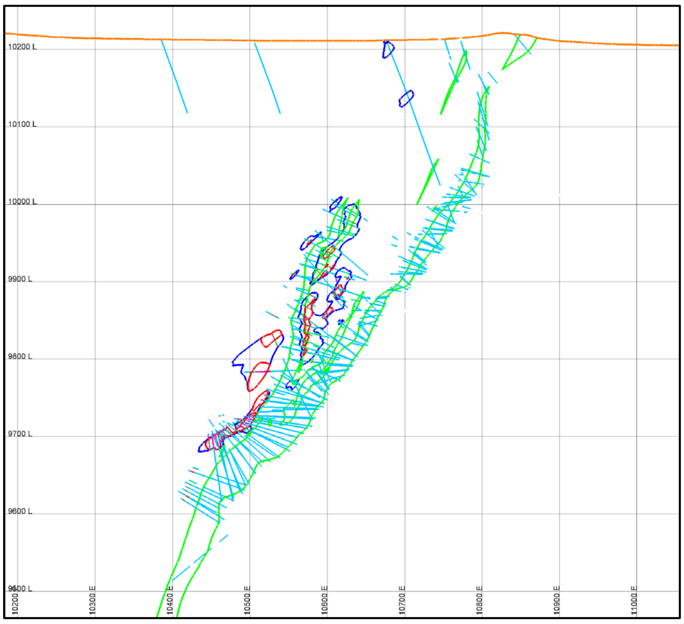
Section 2 Reporting of Exploration Results	
Criteria	**Commentary**
	 **Cross section 14110mN of the South Mine looking north – 1% zinc composite wireframes (green) with 7% zinc composite wireframes (red), development (black), limestone contact (blue), with topography (brown).**  **Cross section 14960mN of the North Mine looking north – 1% zinc composite wireframes (green) with 7% zinc composite wireframes (red), development (black), limestone contact (blue), with topography (brown).**
Balanced reporting	• This is a Mineral Resource Statement and is not a report on exploration results hence no additional information is provided for this section.
Other substantive	• This is a Mineral Resource Statement and is not a report on exploration results hence no additional information is provided for this section.

Section 2 Reporting of Exploration Results	
Criteria	**Commentary**
exploration data	
Further work	• MMG plans to continue to improve geological confidence and Mineral Resource classification through infill drilling programmes ahead of the current mining schedule.

Section 3 Estimation and Reporting of Mineral Resources	
Criteria	**Commentary**
Database integrity	• The following measures are in place to ensure database integrity: ○ All data is stored in an SQL database that is routinely backed up. ○ All logging is digital and directly entered into the onsite Micromine Geobank® database. Data integrity is managed by internal Micromine Geobank® validation checks/routines that are administered by the Database Group and/or the site Geology Team. • The measures described above ensure that transcription or data entry errors are minimised. Data validation procedures include: ○ Database validation procedures are built in the database system to manage accurate data entry during logging and collection of data. ○ Prior to use in the Mineral Resource the drillhole data was checked in Leapfrog software for inconsistencies. ○ Manual checks were carried out by reviewing the drill hole data in plan and section views.
Site visits	• The Competent Person visited site from the 5th to the 13th of January 2022, when a review of geological data capture, storage and validation was conducted. • Some minor recommendations were made to improve practices, however overall, the Competent Person concluded that the geological data capture, storage and validation conducted by MMG was aligned with either industry standard or best practice.
Geological interpretation	• There are four main types of mineralisation styles recognised at Dugald River which include Sulphide Stringer, Banded Ore, Slatey Breccia and Pyrrhotite-Slatey Breccia and Massive Breccia. • The mineralisation is modelled as a continuous lens of zinc mineralisation that anastomoses, splits and merges. • The model is based on zinc grade distribution and geological logging of mineralisation style. • Drill hole composites of 1% zinc for the low-grade mineralisation domain and 7% zinc for the high-grade mineralisation domain form the basis of the geological model. • Globally the Dugald River deposit follows a reasonably predictable lens of mineralisation but with short-range (10m to 20m-scale) variations associated with localised structures that are suitably defined by close-spaced drilling within the Measured Mineral Resources. • The interpretation at the down-dip extremities of the Mineral Resource is based on limited drilling and experimentation during the modelling process has shown that an

Section 3 Estimation and Reporting of Mineral Resources	
Criteria	**Commentary**
	alternative, more conservative interpretation is permissible and could materially reduce the contained metal in the Inferred category. • Underground mapping of development drives for both access and ore drives were also used in assisting with the geological interpretation • A separate hanging-wall Cu-Au domain also exists at Dugald River and was re-interpreted and estimated as part of the 2021 Mineral Resource update. <u>Zinc Grade Domains</u> • The mineralised zinc zone is modelled within two domains, the outer and the inner domain. The inner zone or high-grade zone broadly defines a continuous horizon of massive and breccia sulphide textures. The outer zone defines the surrounding lower grade; stringer sulphide and shoots of discontinuous massive and breccia sulphide texture mineralisation. o The high-grade domain is defined by high zinc grades associated with massive sulphide assemblages. The high-grade domain boundary is explicitly modelled using a combination of the 7% zinc composites, underground geological mapping and core photography. o An internal dilution domain was created to capture material below 6% zinc within the high-grade domain boundary. o The low-grade domain captures a mineralised assemblage of sulphide stringers and shoots of discontinuous massive and breccia sulphide textures. o The low-grade domain boundary is modelled using the 1% zinc composites and geological continuity. • Lead, Silver and Manganese Grade Domains • Within the combined HGZN and LGZN domains, separate domains were generated for Pb, Ag and Mn based on grade distributions, after reviewing log-probability plots for the respective elements. The following cut-off grades were used: **Pb** o low grade < 0.5 % o high grade >= 0.5% **Ag** o Low grade 0 – 30 ppm o Medium grade 30 -100 ppm o High grade >=100 ppm **Mn** o Low grade 0 – 0.3 % o Medium grade 0.3 -1.4 % o High grade >=1.4 % o Separate wireframes were made for each of the grade ranges specified. This was completed through the Leapfrog™ software "Interpolant" function. o All Pb, Ag and Mn mineralisation domains are constrained within the low-grade mineralisation domain.

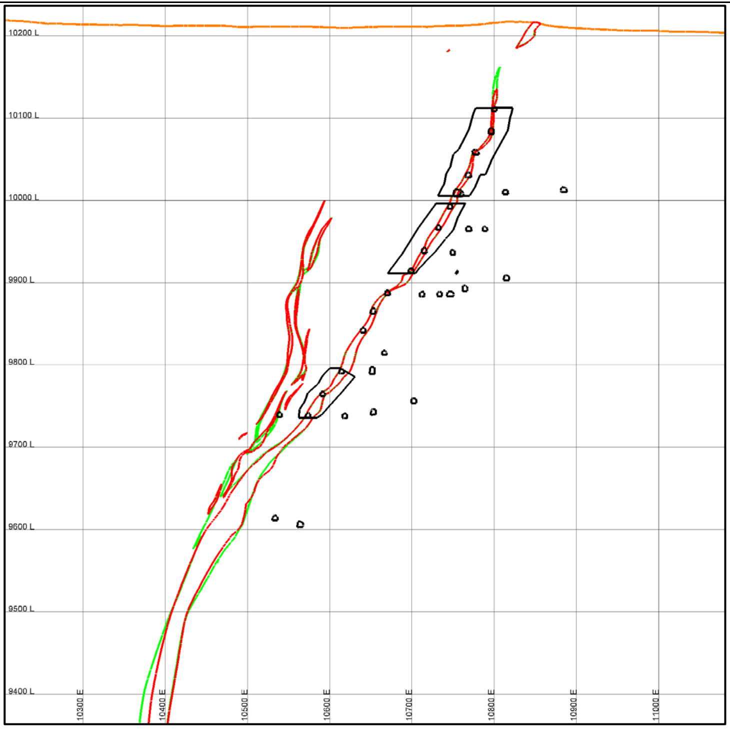
Section 3 Estimation and Reporting of Mineral Resources	
Criteria	**Commentary**
	 **Long section (looking West) of the Pb Domains – D1 (Blue – Low Grade / Red – Med & High Grade)**  **Long section (looking West) of the Ag Domains – D1 (Blue – Low Grade/ Yellow – Medium Grade / Red – High Grade)**  **Long section (looking West) of the Mn Domains – D1 (Blue – Low Grade/ Yellow – Medium Grade / Red – High Grade)** • Copper, Gold and Cobalt Grade Domains • A reinterpretation of the hanging wall copper domain was carried out to coincide with the February 2021 Mineral Resource model update and remained unchanged for the 2022 MRE update. • Two types of Cu mineralisation occur including one type in the hanging wall of the South Mine deposit and HW Zn lens position associated with Au and locally high in Au and Mo. The second type occurs in the South Mine between the main lens and HW lens with lower Au but associated with Co which is locally quite elevated (>1%). • The hanging wall Cu-Au mineralisation occurs primarily as chalcopyrite within the mica schist but can extend into the mafic porphyry and black slate lithologies.

Section 3 Estimation and Reporting of Mineral Resources	
Criteria	**Commentary**
	- High-grade Cu-Au occurs as extensive chalcopyrite stringers in the black slate, like the transposed banded ore and sulphide stringers in the Zn orebody. - The most substantial zones of chalcopyrite occur within albite-chlorite-white mica-epidote-silica altered mica schist and as matrix cement in filled breccias. - Lastly, chalcopyrite occurs as infill and at the margins of large quartz veins. Rare bornite is locally disseminated in the altered mica schist, mafic porphyry, and calc-silicate. - Cu-Co type mineralisation occurs at the margins of pervasive albite alteration that contains disseminated pyrite. The margins of the albite are brecciated with carbonate infill with trace chalcopyrite and arsenopyrite. - The deportment of the Co is unknown but is interpreted to occur in cobaltite, arsenopyrite and/or cobalt rich pyrite.  **Long-section (looking East) Dugald River Copper Wireframes. HGCU – Red and LGCU – Green wireframe.**  **Cross-section (looking North) from panels 3-4B showing 2022 hanging wall HGCU wireframe (red outlines) and LGCU wireframe (blue outlines); based on the current**

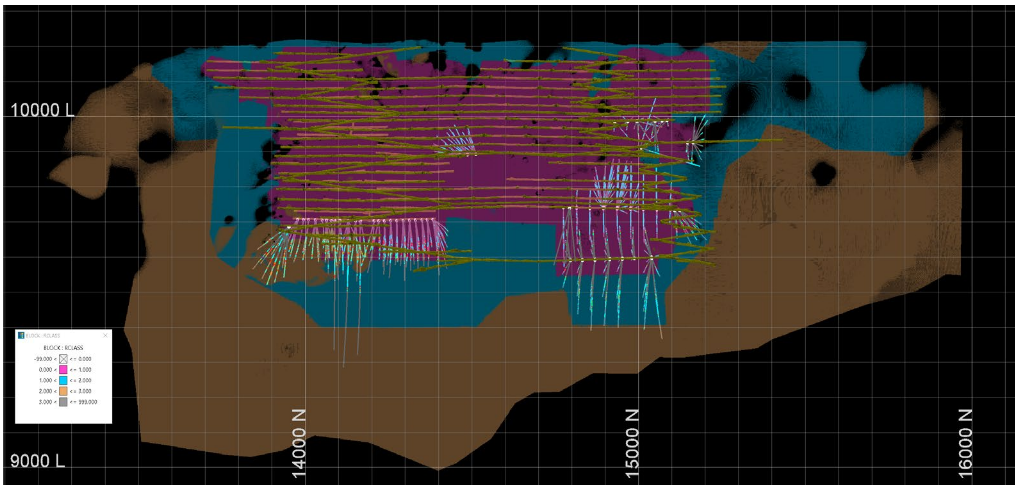
<table>
<tr><th colspan="2">Section 3 Estimation and Reporting of Mineral Resources</th></tr>
<tr><th>Criteria</th><th>Commentary</th></tr>
<tr><td></td><td>geological understanding of Dugald River deposit. The 2022 HGZN Wireframe interpretation showing in green outlines.
• Globally, the Dugald River deposit follows a reasonably predictable lens of mineralisation but with short-range (10m to 20m-scale) variations associated with localised structures that are suitably defined by close-spaced (20m x 20m) drilling within the Measured Mineral Resources.</td></tr>
<tr><td><i>Dimensions</i></td><td>• The Dugald River lode is hosted within a major N-S striking steeply west dipping shear zone which cross cuts the strike of the Dugald River Slate stratigraphy at a low angle.
• The strike length of mineralisation is approximately 2,400 m. Dip varies between 85° and 40° to the west.
• The true thickness of the majority of the Mineral Resource is between 3 m and 30 m with the thickest zones occurring to the south.
• The mineralisation is open at depth. The deepest drill intersection of mineralised material is about 1,140 m below the surface.</td></tr>
<tr><td><i>Estimation and modelling techniques</i></td><td>• Mineral Resource modelling was completed using both Supervisor and Vulcan software applying the following key assumptions and parameters:
○ Ordinary Kriging interpolation has been applied for the estimation of Zn, Pb, Ag, Mn, Fe, S, total carbon, Cu, Au and Bulk Density. This is considered appropriate for the estimation of Mineral Resources at Dugald River.
○ Extreme grades were treated by grade capping and were applied after compositing, with values greater than the selected ‘cut value’ being set to the top cut value and used in the estimation. Grade cap values were selected using a combination of both histogram and cumulative log probability plots.
○ Grade estimation was performed using a local varying anisotropy (LVA), which aligns and optimises the search direction of the estimate to the mineralised domain trend.
○ Hard boundary contacts were used to select samples used to estimate blocks in each of the mineralised Zn domains (high-grade and low-grade) as well as into individual domains for Ag, Mn and Pb. Hard boundaries were also used for the copper domain to estimate Cu, Co and Au.
○ Variogram were modelled within each of the respective domains, these variogram ranges were then applied to the search parameters used in the estimation.
○ Orientation of the search ellipse was matched to the LVA, that is the dip and dip direction at the local block was used in the estimation of the model.
○ Drillhole compositing resulted in nominal 1m intervals with residual composite intervals absorbed evenly into the adjacent composites resulting in no loss of sample intervals.
○ Separate variography and estimation was performed for Zn, Pb, Ag, Mn, Fe, S, bulk density, Cu, Au and total carbon, within each of their respective mineralised domains.
○ No assumptions have been made about the correlation between variables. All variables are comparably informed and independently estimated.
○ Interpolation was undertaken in two stages:
–Stage1: Ordinary Kriging applying two passes with varying search ellipse dimensions
–First pass is equal to 80 - 100% of the combined variogram range</td></tr>
</table>

Section 3 Estimation and Reporting of Mineral Resources	
Criteria	**Commentary**
	–Second pass is equal to 2x the combined variogram range –Stage 2: Assign blocks not estimated by the Ordinary Kriging 2 passes, the median grade of the respective domain. ○ A maximum number of 3 sample per drill holes was used for all estimates. ○ Generally, the number of composite samples was restricted to a minimum of 6 and a maximum of 20 to 28 based on Kriging Neighbourhood Analysis (KNA); depending of variables ○ Octant or sector method was generally not applied to the Ordinary Kriging estimate ○ Block discretisation of 2 x 8 x 8 was applied. ○ In areas if intense drilling (10 x 20m), the estimate was performed with parent block set to 2.5m x 6.25m x 6.25m (xyz) with sub-cells of x=0.5m, y=1.25m, z=1.25m. Sub-cells were assigned parent block values. This block size is used to better estimate local variance with increased information. ○ Background waste is estimated with parent block size of 10m x 50m x 50m (xyz), this was to reduce the total block model size. • No external dilution has been applied to block grades. However, parent block size has assumed mining selectivity at a stope level. No other selective mining unit size assumptions were made in the estimation process. • Leapfrog interpretation using implicit modelling of internal waste was completed between drillholes within the Zn domains. • 2022 block model validation included the following steps: ○ Comparison against the previous 2021 block model including visual comparison of plans and cross-sections, tonnes grade curves, cumulative probability plots and trend plots. ○ Comparison against drillhole data using visual comparison of plans and cross-sections, statistics by domain, cumulative probability plots and swath plots. ○ Numerous changes occurred compared to the previous 2021 Mineral Resource estimate due to an increased understanding in the model boundary extents, improved wireframing of the Zn envelope and additional volume from previously un-modelled hanging wall intercepts. ○ A comparison of the Zn wireframing between 2021 (red) and 2022 (green) is shown below

Section 3 Estimation and Reporting of Mineral Resources

Criteria	**Commentary**
	 **Long Section View (looking North), comparison between 2021 (green) vs 2022 (red) Zn HG Interpretations.**
Moisture	• Tonnes in the model have been estimated on a dry basis.
Cut-off parameters	• The Mineral Resource is reported above an A$145/t NSR (net smelter return) cut-off. The selection of the A$145/t NSR cut-off defines mineralisation which is prospective for future economic extraction. The reporting cut-off grade is in line with MMG's policy on reporting of Mineral Resources which is prospective for future economic extraction.
Mining factors or assumptions	• Mining at Dugald River is underground with the long-hole open stoping method favoured. Currently the deposit is accessed by two declines. • No external dilution has been applied to block grades. However, parent block size has assumed mining selectivity at a stope level. • The Mineral Resource has been depleted to account for mining and any un-minable stope remnants.
Metallurgical factors or assumptions	• The metallurgy process proposed for the Dugald River deposit involves crushing and grinding followed by flotation and filtration to produce separate zinc and lead concentrates for sale. • Deleterious elements include manganese and carbon, which have been estimated in the block model. • Manganese percentage in the zinc concentrate is calculated as a post-processing step to allow the generation of a value that can be used for the Ore Reserve. • Manganese percentage in the zinc concentrate is calculated by way of an algorithm contained within the NSR script.

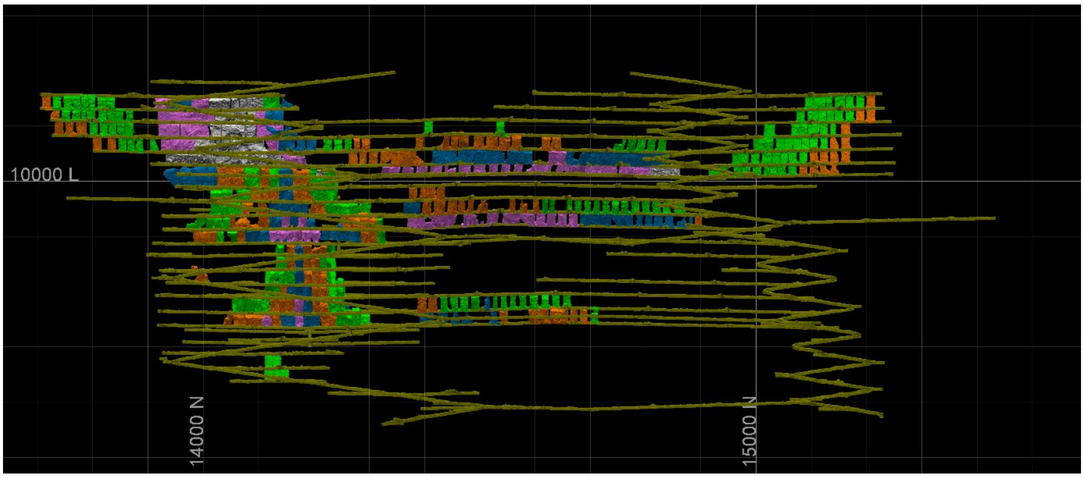
Section 3 Estimation and Reporting of Mineral Resources	
Criteria	**Commentary**
Environmental factors or assumptions	• Dugald River operates under Environmental Authority EPML00731213 issued by the Department of Environment Heritage Protection on 12 August 2012 and amended on 16 September 2016. • Non-acid forming (NAF) and Potentially Acid Forming (PAF) waste rock are distinguished by a north-south striking Limestone and Undifferentiated Black Slate lithological boundary respectively. Volumes are estimated and managed in accordance with site procedures. • Waste rock storage space on surface is limited. The north mine area will allow for the return of waste rock as backfill and the south mine is backfilled with paste fill generated from tailings. • PAF/NAF classification is based on the work by Environmental Geochemistry International (EGI) in 2010. Subsequent follow-up test work onsite confirms EGI's conclusions.
Bulk density	• Bulk density is determined using the weight in air and water method. Frequency of samples is at least 1 determination per core tray and based on geological domains. The current database consists of 17,943 bulk density measurements. • Dugald River rock is generally impermeable, requiring no coatings for reliable measurements. • Bulk density in the model has been estimated using Ordinary Kriging. Density estimation is constrained within the defined mineralisation domains. • Un-estimated blocks were assigned a bulk density value based on a stoichiometric formula (see below). Bulk Density (assigned) = (3.8*A/100) + (7.3*B/100) + (4.6*C/100) + (2.573*D/100) –*Sphalerite content A = 1.5*Zn%* –Galena content B = 1.15*Pb% –Pyrrhotite/Pyrite content C = (Fe%-(0.15*Zn%))*1.5 –Gangue D = 100-A-B-C –SG of sphalerite = 3.8 –SG of Galena = 7.3 –SG of Pyrrhotite/pyrite = 4.6 –SG of gangue = 2.573 –Fe content in Sphalerite = 10% • A bulk density of 2.75 g/cm3 has been assumed for the waste host domain.
Classification	• 2022 classification incorporates a combination of Kriging variance (KV), Kriging efficiency (KE), Kriging slope of regression (RS), drilling density and location of underground development (presence of underground geological mapping). • Mineral Resource categories are generally based on: • Measured: < 20m drill spacing, RS>0.85 plus grade control drilling. • Indicated: > 20m to <100m drill spacing, RS<0.6. • Inferred: > 100m drill spacing, within mineralised domains

Section 3 Estimation and Reporting of Mineral Resources	
Criteria	**Commentary**
	• Measured, Indicated and Inferred Mineral Resources have been defined using definitive criteria determined during the validation of the grade estimates. • The Inferred Mineral Resource classification was based on the following criteria: o The block must have an estimated Zn grade by Ordinary Kriging. o The block must be within a mineralised domain o No waste blocks are classified (un-classified) o All Mineralisation Copper domains • The Indicated Mineral Resource classification was based on the following criteria: o Where the blocks occur in a portion of the deposit with a density of drilling of approximately 50m x 50m. o The slope of regression for the Zn OK estimate is greater than 0.4 and Kriging variance greater than 6. • The Measured Mineral Resource classification was based on the following criteria: o Where the blocks occur in a portion of the deposit with a density of drilling of approximately 20m x 20m or better. o The slope of regression for the Zn OK estimate is greater than 0.85 and Kriging variance less than 6. o Mean average distance < 35m which is variogram range of first structure. • The Competent Person reviewed the distribution of KV, KE and RS in long section view and generated three-dimensional wireframes to select Measured, Indicated and Inferred blocks. These wireframes also take into consideration the location of the underground development and presence of geological mapping and the 20 m x 15 m underground drilling. The use of wireframes ensured that contiguous areas of like classification were generated thus avoiding the "spotted dog" pattern of classified blocks. • The Mineral Resource classification reflects the Competent Person's view on the confidence and uncertainty of the Dugald River Mineral Resource. • Below is a long section looking east of the Dugald River mineralisation lode showing blocks coloured by Kriging variance (KV) and the Measured, Indicated and Inferred wireframes used in selecting the Mineral Resource classification. 

Section 3 Estimation and Reporting of Mineral Resources	
Criteria	**Commentary**
	Long-Section view (looking west) of 2022 Resource Classification at Dugald River ZNHG. Block colour by Measured (magenta), Indicated (cyan) and Inferred (orange).
Audits or reviews	• An internal peer review by Mining Plus has been completed on the current 2022 Mineral Resource estimate. An external audit was also carried out by AMC Consultants who made some recommendations, which were implemented prior to release to MMG. No further material items to the Mineral Resource have been identified.
Discussion of relative accuracy/confidence	• The Competent Person is of the opinion that the current block estimate provides a good estimate of tonnes and grades on a global scale. • In locations where grade control drilling of approximately 15mN x 20mRL spacing has been completed, the Competent Person has a high level of confidence in the local estimate of both tonnes and grades, which is reflected in the Mineral Resource Classification. • The interpretation at the down-dip extremities of the Mineral Resource is based on limited drilling and experimentation during the modelling process has shown that an alternative, more conservative interpretation is permissible and could materially reduce the contained metal locally and globally. This is reflected in the Resource classification. • Mine void data (development pickups and stope CMS's) were collated for the period February 2014 to 31 December 2021 to reconcile the previous and current block model estimates with mine and mill production data. • Mining Plus notes the following with respect to the mine void data: o Development was allocated by cuts sent as ore and waste. Stopes were cut to represent fired ore. No adjustment has been made for non-recoverable tonnes left in stopes or for the backfill material coming from Avoca style stopes as it is deemed insignificant. o Mine voids for development were collected per month. Stopes were collected at final CMS and tonnes and grade proportioned across the months that the stope was active. o Pitram data was sourced direct from Pitram OLAP Cube, mill data came directly from Pi and void tonnes and grade were calculated using Advance Reserve Editor in Vulcan against the block model. o Mining Plus attempted to prepare a reconciliation for the 2021 period, however, there was significant uncertainty regarding what the 2021 reconciliation shapes represented and how they related to the reported tonnes and grades. Mining Plus was not able to resolve this uncertainty through its communication with MMG site personnel.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	Commentary



Perspective view west: Mined areas of Dugald River at 31 December 2021 used in the reconciliation analysis.

The table below compares the production data reported by MMG mine claimed and mill reconciled with the report from the 2022 block model for the period February 2014 to 31 December 2021. The Competent Person considers that the agreement is acceptable, however, additional improvements to the modelling and estimation process should be investigated for the next iteration of the Mineral Resource Estimate.

Mined to date	Reported Mined Claimed	Mill Reconciled	2022 Block model report	F3
				2022 BM
Tonnes (dmt)	8,341,668	8,309,623	8,446,440	0.98
Zn %	11.05	10.48	10.95	0.96
Zn Metal (t)	**921,473**	**870,499**	**924,602**	**0.94**
Pb %	1.9	1.73	1.77	0.98
Pb Metal (t)	**158,214**	**143,826**	**149,000**	**0.97**
Ag ppm	54.7	49.7	51.5	0.96
Ag (Oz)	**14,665,304**	**13,276,109**	**13,928,602**	**0.95**

The table above includes the tonnes and grades reported from the following sources:

- The production figures reported by the MMG ore control team (MMG Mine Claimed) (Traegar, S., 2022, DRM 2021 Geology Reconciliation),
- The production figures reported by the MMG processing plant (MMG Mill Reconciled) (Traegar, S., 2022, DRM 2021 Geology Reconciliation),
- The 2022 Version C2 block model - DR_GMR_2203_V2_Final (JORC Mineral Resource Estimate Report – Dugald River 2022)
- The F3 reconciliation factor based on the Scenario 2 estimate (F3: MP BM)

5.2.3 Statement of Compliance with JORC Code Reporting Criteria and Consent to Release

This Mineral Resource statement has been compiled in accordance with the guidelines defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("2012 JORC Code").

5.2.3.1 Competent Person Statement

I, Andrew Fowler, confirm that I am the Competent Person for the Dugald River Mineral Resource section of this Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having five years' experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Member and Chartered Professional in the Geology Discipline of The Australasian Institute of Mining and Metallurgy
- I have reviewed the relevant Dugald River Mineral Resource section of this Report to which this Consent Statement applies.

I am a full-time employee of Mining Plus Pty Ltd. at the time of the estimation.

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Dugald River Mineral Resource section of this Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to the Dugald River Mineral Resources.

5.2.3.2 Competent Person Consent

Pursuant to the requirements Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

With respect to the sections of this report for which I am responsible – the Dugald River Mineral Resources - I consent to the release of the 2021 Mineral Resources and Ore Reserves Statement as at 30 June 2021 Executive Summary and Technical Appendix Report and this Consent Statement by the directors of MMG Limited:

This signature was scanned for the exclusive use in this document – the *MMG Mineral Resource and Ore Reserve Statement as at 30 June 2022* – with the author's approval. Any other use is not authorised.

Date: 03/07/2022

Andrew Fowler MAusIMM CP (Geo) #301401

This signature was scanned for the exclusive use in this document – the *MMG Mineral Resource and Ore Reserve Statement as at 30 June 2022* – with the author's approval. Any other use is not authorised.

Cecilia Artica,
Hamilton, QLD

Signature of Witness:

Witness Name and Residence: (e.g. town/suburb)

5.3 Ore Reserves – Dugald River

5.3.1 Results

The 2022 Dugald River Ore Reserves are summarised in Table 15.

Table 15 2022 Dugald River Ore Reserve tonnage and grade (as at 30 June 2022)

Dugald River Ore Reserves							
2022					**Contained Metal**		
	Tonnes	**Zinc**	**Lead**	**Silver**	**Zinc**	**Lead**	**Silver**
	(Mt)	**(% Zn)**	**(% Pb)**	**(g/t Ag)**	**(kt)**	**(kt)**	**(Moz)**
Primary Zinc[1]							
Proved	11.6	10.9	1.9	62	1,260	225	23
Probable	10.2	10.1	0.9	14	1,029	89	4
Total	**21.8**	**10.5**	**1.4**	**39**	**2290**	**314**	**27**
Stockpiles							
Proved	0.02	9.9	1.6	40	2	0.4	0.03
Total	**0.02**	**9.9**	**1.6**	**40**	**2**	**0.4**	**0.03**
Total	**21.8**	10.5	1.4	39	**2292**	**314**	**27**

[1] Cut-off grade is based on Net Smelter Return (NSR) after Royalties, expressed as a dollar value ($A) of dependant on the area of the mine as described in Table 16 ranging from $A130/t to $A150/t

Contained metal does not imply recoverable metal.

The figures are rounded according to JORC Code guidelines and may show apparent addition errors.

- Resource drilling in 2021 focused on material conversion from Indicated to Measured categories and as a consequence, along with the depletion of 12 months of production, has driven the change in Proved and Probable Ore Reserves.
- Cut off values across multiple Panel/Block domains reflect fill type, ground support, haulage and refrigeration costs at increased depths.

5.3.2 Ore Reserves JORC 2012 Assessment and Reporting Criteria

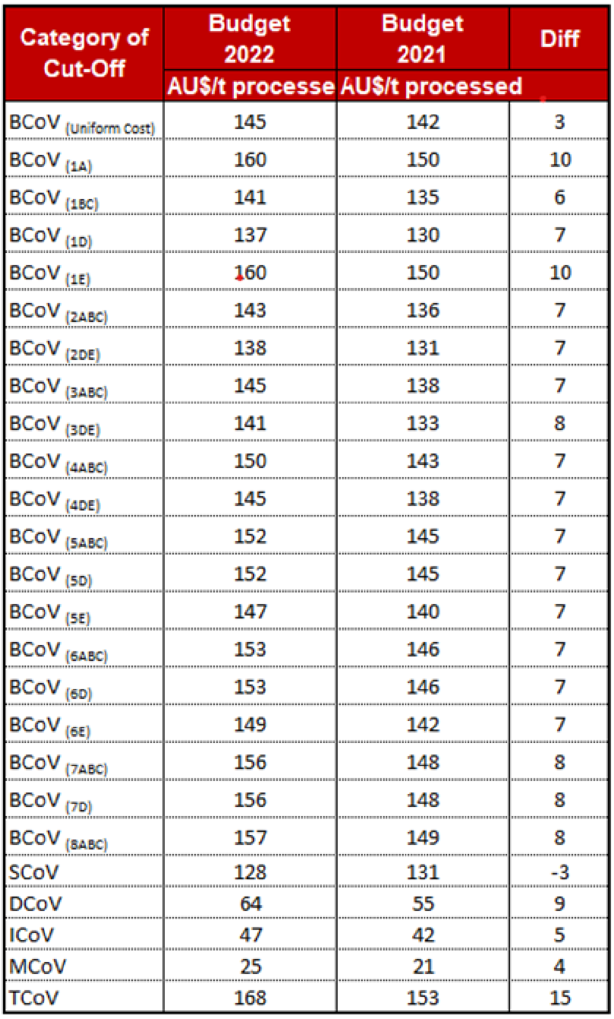
The following information provided in Table 16 complies with the 2012 JORC Code requirements specified by "Table-1 Section 4" of the Code.

Table 16 JORC 2012 Code Table 1 Assessment and Reporting Criteria for Dugald River Ore Reserve 2022

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
Mineral Resources estimate for conversion to Ore Reserves	The Mineral Resources are reported inclusive of the Mineral Resources used to define the Ore Reserves. The Mineral Resources model used the MMG March 2022 Mineral Resources model. (DR_GMR_2203_VERC2_MINED_NSR.bmf) Risks associated with the model are related to orebody complexity seen underground, but not reflected in the Mineral Resources model due to the spacing of the drill holes that inform the model. The 2022 Geotechnical Equivalent Linear Overbreak Slough (ELOS) model was used to estimate the HW thickness, tonnes and grade of the planned dilution applied to the 2022 stope shapes.
Site visits	Philip Bremner, the Competent Person for the Dugald River Ore Reserve visited the site during 2021/2022 reporting period in May 2022. Communication with site has been via video conferencing and email as required.
Study status	The mine is an operating site with on-going detailed Life of Mine planning.
Cut-off parameters	The breakeven cut-off grade (BCoV) and Mineral Resources cut-off grade have been calculated using 2022 Budget costs. The BCoV has been calculated for 19 discrete areas of the mine reflecting differences in backfill methodologies, and increased costs at depth, namely ground support and haulage distances to surface and power requirements for ventilation refrigeration. The operating costs, both fixed and variable, have been attributed on a per tonne basis using the planned mine production rate of 2.0 Mtpa The Net Smelter Return (NSR) values are based on metal prices, exchange rates, treatment charges and refinery charges (TC's & RC's), government royalties and a metallurgical recovery model. The NSR value for the BCoV is to the mine gate and includes the average sustaining capital estimate for the 2022 Ore Reserves. Infill diamond drilling has been included as part of the sustaining capital. For 2022 Ore Reserves (OR) and Life of Mine (LoM), the break-even cut-off values (BCoV) have been used to create stopes and for the level by level evaluation.

Section 4 Estimation and Reporting of Ore Reserves

Criteria	Commentary



Category of Cut-Off	Budget 2022	Budget 2021	Diff
	AU$/t processe	AU$/t processed	
BCoV (Uniform Cost)	145	142	3
BCoV (1A)	160	150	10
BCoV (1BC)	141	135	6
BCoV (1D)	137	130	7
BCoV (1E)	160	150	10
BCoV (2ABC)	143	136	7
BCoV (2DE)	138	131	7
BCoV (3ABC)	145	138	7
BCoV (3DE)	141	133	8
BCoV (4ABC)	150	143	7
BCoV (4DE)	145	138	7
BCoV (5ABC)	152	145	7
BCoV (5D)	152	145	7
BCoV (5E)	147	140	7
BCoV (6ABC)	153	146	7
BCoV (6D)	153	146	7
BCoV (6E)	149	142	7
BCoV (7ABC)	156	148	8
BCoV (7D)	156	148	8
BCoV (8ABC)	157	149	8
SCoV	128	131	-3
DCoV	64	55	9
ICoV	47	42	5
MCoV	25	21	4
TCoV	168	153	15

Criteria	Commentary
Mining factors or assumptions	A detailed design of the 2022 OR was used to report Mineral Resources conversion to an Ore Reserve. The 2022 Geotechnical Equivalent Linear Overbreak Slough (ELOS) model was used to estimate the HW thickness, tonnes and grade of the planned dilution which was applied to the 2022 stope shapes. The orebody access is split into a north and south mine, due to its 2 km strike length and a low-grade zone at the extremities of the orebody. The north mine is narrow (average ~5 m true width) and sub-vertical. The south mine is wider than the north mine with a flexural zone in the centre. The south mine is narrow and steep in the upper zone (~top 200 m from surface) and lower zone (~below 700 m from surface). The central zone is flatter and thicker than the upper and lower zones. Mining methods for the mine are Sub-Level Open Stopes (SLOS) both Longitudinal and Transverse in the South Mine and modified Avoca stoping or Core & Shell stopes with rib pillars in the North Mine. Level intervals occur every 25m and stopes have a strike length of 15m. The stopes are broken into the following categories: Longitudinal SLOS, for stopes up to 10-15m wide horizontally. (Where the orebody has thickened adjacent stopes are mined in sequence after paste filling)

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**

	- Transverse SLOS, for stopes where the orebody thickness lends itself to sequential stope extraction retreating along cross-cuts.
	- Crown pillar SLOS, for the top level of each panel where stoping occurs directly below a previously mined area.
	- Modified Avoca stopes/Core & Shell Stopes for the North Mine
	- The stopes were created by applying the Mineable Shape Optimiser (MSO) plugin, within Deswik MineCAD, to the 2022 Mineral Resources model (DR_GMR_2203_VERC2_MINED_NSR.bmf) which required conversion into a Datamine format. NSR values were written to each block via a script (validated against an excel spreadsheet). The macro and spreadsheet considered metallurgical recoveries, metal pricing, transport costs, royalties TC/RC's and exchange rate.
	- The parameters used to create the stope shapes were:
	  o All Mineral Resources categories included
	  o 25 m level interval
	  o Variable strike length
	  o Minimum mining width (MMW) of 2.5 m
	  o The minimum dip of 52 degrees for Footwall (FWL) and 37 degrees for Hanging wall (HW)
	  o Minimum waste pillar between parallel stopes of 7.5m
	  o A BCoV associated with the appropriate mine zone, applied to create initial stope shapes.
	- No Inferred Mineral Resources are included in the Ore Reserves. Inferred material was assigned a zero-metal grade and only stopes able to carry this material as waste were included in the reported tonnes.
	- Several aspects of dilution were considered, planned dilution, fill dilution and HW dilution. Planned dilution was included in the MSO stope shapes and covers localised variations in dip and strike as well as minimum mining width. No additional FW dilution was applied as the initial stope shapes considered minimum mining widths and dip.
	- The HW dilution was calculated for each stope based on the Geotechnical conditions and thicknesses of the HW materials. The site has compiled a detailed HW dilution model as dilution varies across the ore-body according to the HW conditions.
	- Fill Dilution and Stope Recovery Factors:
	- Floor 0.15 m, Backs 0.5 m and Wall fill ranges from 1 m to 1.5 m dilution.
	- Recoveries Longitudinal 90%, Modified AVOCA / Core & Shell with rib pillars 75% and Crown stopes 90%,
	- Development grades were diluted by the application of a grade factor of 95% to the development grade estimated from the block model.
	- The underground (UG) mine is accessed via two separate declines and as such the mine is split into two – north and south, although both declines are connected via a link drive approximately every 150m vertically at the base of each production Panel. As of 30 June 2022, 9,640m of decline has been mined, along with a further 70,287m m of lateral development (excluding 4,065m of paste development). A third in-mine decline in the south mine, for independent access to Block A, has commenced.

Section 4 Estimation and Reporting of Ore Reserves

Criteria	Commentary
	• Currently, six raise-bored ventilation shafts have connection to the surface: o The southern Fresh Air Raise (FAR1) – at 3.5 m diameter and 90m depth; o The southern Fresh Air Raise (FAR2) – at 5.0 m diameter and 190 m depth; with a120m and 130m extensions to the 340 level and 490 level respectively o The southern Return Air Raise (RAR1) – at 5.0 m diameter and 154 m depth; with a 375m extension (multiple holes) to the 565 level o The southern Return Air Raise (RAR2) – at 5.0 m diameter and 197 m depth; with a 270m extension (multiple holes) to the 490 level and a further 135m extension to 640 level. o The northern Fresh Air Raise (FAR) at 3.5 m diameter and 165 m depth with a 275m extension (multiple holes) to the 490 level and a further 130m extension to the 640 level. o The northern Return Air Raise (RAR) at 5.0 m diameter and 104 m depth with a 310m extension (multiple holes) to the 490 level and a further 140m extension to the 640 level. o On each return shaft collar there is an exhaust fan drawing approximately 270-300m^3/s. o • There is also a secondary RAR system in the north and south mines comprising of LHW and 3.0-3.5m raise bored holes that have connections to each production level where there is access. • Secondary egress is provided by link drives between the South & North declines. These link drives are positioned at the base of each production Panel. The lowest connection to date has been made at the base of Panel 4 on the 640 Level. • An internal ladderway also exists in the South mine between the 50 and 200 Levels. In addition, strategically placed refuge chambers are to be found throughout both mines. • The current mining mobile fleet is currently contractor supplied and operated. This includes 3 twin-boom jumbos, 2 cable bolting rig, 7 loaders, 9 dump trucks, 3 long-hole drill rigs, 2 shotcrete rigs, 2 Transmixers, 2 charge-up vehicles, 3 integrated tool carriers, and a light vehicle fleet.
Metallurgical factors or assumptions	• The metallurgical process for treatment of Dugald River ore involves crushing, grinding followed by sequential carbon/lead/zinc flotation to produce separate lead and zinc concentrates. The carbon concentrate is a waste product and reports to final tailings. This process, and the equipment used, is conventional for this style of mineralisation and used worldwide. • The Dugald River processing facility was commissioned with production commencing in October 2017, with nameplate throughput reached after 7 months of operation (May 2018). Both lead and zinc concentrate produced at Dugald River meet saleable grade and impurity specifications. • Production performance has shown good alignment of concentrate grade and recovery performance to that derived through the project study phases. • Dugald River plant operating data has been analysed to establish the metallurgical factors used for Ore Reserve calculations These are detailed herein.

Section 4 Estimation and Reporting of Ore Reserves

Criteria	Commentary

%Zn$_{\text{PF Feed}}$, %Pb$_{\text{PF Feed}}$, %Fe$_{\text{PF Feed}}$, %Mn$_{\text{PF Feed}}$, %CP$_{\text{F Feed}}$ refer to the relevant assays of the plant ore feed.

- Lead Concentrate Grade Pb% = Long Term (2026+) = 63%
- Lead recovery to lead concentrate accounts for lead lost to the carbon concentrate via the following equation:
- Pb recovery Pb Conc (%)=

$$\frac{(100 - \text{PF \%Pb loss}) * \text{Pb cct \%Pb Rec} * \text{Pb Rec factor}}{100}$$

- Where

Lead recovered to carbon concentrate:

PF %Pb Loss = -4.971+ 0.967 x %C$_{\text{PF, Feed}}$ + 0.13754 x %C$_{\text{PF Recovery}}$

Carbon recovered to carbon concentrate:

%C$_{\text{PF Recovery}}$ = 100 x (26.4 / %C$_{\text{PF Feed}}$) x (%C$_{\text{PF Feed}}$ – 2.75) / (26.4 – 2.75)

Lead recovered by the lead circuit:

Pb Cct %Pb Rec = 29.53 + 35.58 x %Pb$_{\text{PF Feed}}$ – 7.473 x %Pb$_{\text{PF Feed}}$ ^ 2

Lead recovery factor:

Pb Rec Factor = 0.99

Silver recovery to lead concentrate accounts for the silver which is lost to the carbon concentrate, the equation being:

- ○ Ag recovery Pb Conc (%) =

$$\frac{(100 - PF\ \%Ag\ loss) * Pb\ cct\ \%Ag\ Rec\ (wrt\ PF\ tail)}{100}$$

- Where

Silver recovered to carbon circuit:

PF %Ag loss = 1.424 + 0.9061 x PF %Zn loss + 0.4335 x PF %Pb loss

Zinc recovered to carbon concentrate:

PF %Zn loss = -4.122 + 0.656 x %C$_{\text{PF Feed}}$ + 0.10009 x %C$_{\text{PF Recovery}}$

Lead recovered to carbon concentrate:

PF %Pb Loss = -4.971+ 0.967 x %C$_{\text{PF, Feed}}$ + 0.13754 x %C$_{\text{PF Recovery}}$

Lead circuit silver recovery

Pb cct %Ag Rec (wrt PF tail) = -8.91 + 0.1674 x Ag$_{\text{PF Feed}}$ + 5.663 x %Pb$_{\text{PF Feed}}$ + 0.5237 x %Overall Pb Recovery

- Zinc concentrate grade is directly affected by the manganese in the ore feed due to it being substituted for zinc within the sphalerite mineral, and as such the final concentrate grade is estimated to account for this.

Zinc Concentrate Grade Zn% =

%Zn$_{\text{Zn con}}$ = %Zn$_{\text{Sphalerite}}$ x %Sphalerite$_{\text{Zn Con}}$

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
	- Where: ○ Sphalerite content of zinc concentrate: $\%Sphalerite_{Zn\ Con}$ = 91.94% (2022), 93% (2023 onwards) ○ Zinc in sphalerite: $\%Zn_{Sphalerite} = 65.23 – 1.101\ x\ (\%Mn_{Sphalerite} + \%Fe_{Sphalerite})$ ○ Manganese in sphalerite: $\%Mn_{Sphalerite} = \%Mn_{Zn\ Con}\ x\ 97.99\% / \%Sphalerite_{Zn\ Con}$ ○ Manganese in zinc concentrate: $\%Mn_{Zn\ Con} = 0.2094 + 2.7503\ x\ \%Mn_{PF\ Feed}$ ○ Iron in the sphalerite: $\%Fe_{Sphalerite} = 6.131 +0.92\ x\ \%Mn_{Sphalerite}$ Zinc recovery to zinc concentrate accounts for the zinc lost in both the carbon and lead concentrates by the equation: Zn recovery Zn Conc (%) = $\frac{(100 - PF\ \%Zn\ loss\ -\ Pb\ \%Zn\ loss) * Zn\ cct\ \%Zn\ Rec\ *\ Zn\ Rec\ factor}{100}$ Where ○ Zinc recovered to carbon concentrate: PF %Zn loss = -4.122 + 0.656 x $\%C_{PF\ Feed}$ + 0.10009 x $\%C_{PF\ Recovery}$ ○ Zinc recovered to lead concentrate: Pb %Zn Loss = 0.982 – 0.04507 x $\%Pb_{Final\ Pb\ Con}$ + 9.638 x $Pb/Zn_{PF\ Feed}$ + 0.02397 x %Pb Rec ○ Zinc circuit stage recovery: Zn cct %ZnRec = $\%Zn_{Final\ Con} / \%Zn_{Rgher\ Feed}$ x $(\%Zn_{Rgher\ Feed} - Zn_{Comb\ tail})/(\%Zn_{Zn\ Con} - Zn_{Comb\ tail})$ ○ Zinc in zinc circuit rougher feed: $\%Zn_{Rgher\ Feed} = -0.3424 + 1.08669\ x\ \%Zn_{PF\ Feed}$ ○ Zinc in zinc circuit combined tail: $Zn_{Combined\ tail} = 0.8\%$ if $\%Zn_{Rgher\ Feed} <= 10.5\%$ or else $Zn_{Combined\ tail} = -0.208 + 0.0921\ x\ \%Zn_{Rgher\ Feed}$ ○ Zinc recovery factor: Zn Rec Factor = 0.988 - A full check has been completed for possible deleterious elements, and the only two that are material to economic value are iron and manganese in the zinc concentrate. It is for this reason that the algorithms to predict these components have been developed using Dugald River operating data. - Fluorine has been identified within the orebody and to date has resulted in isolated elevated levels in the lead concentrate however has been successfully controlled through the flotation process.
Geotechnical	- Ground conditions at Dugald River are generally good to fair with isolated areas of poor ground associated with shear zones and faults. - Development ground support at this stage in the mine life of Dugald River focuses on static stability requirements with surface support matched to the ground

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
	conditions, e.g. mesh for good ground/ short design life and Fibrecrete for poor ground and long-term design life (e.g. decline, level access and infrastructure). • Stope stability is strongly influenced by the presence and proximity of hanging wall shear zones which are associated with very poor ground conditions. • The trial stoping conducted at Dugald was used to calibrate the geotechnical stope dilution model from which guidance on stope dimensions (strike/ hydraulic radius) and estimates of stope dilution could be made. • Conservative stope design has been recommended after a review of previous stope performance at Dugald River highlighted a large step change in stope performance once spans had increased above a Hydraulic Radius of 5.0~5.5. Decreased stope sizing to a nominal 15m strike has improved predicted ELOS. From the most recent run of the mechanistic overbreak model, the predicted dilution for stopes contained within the 2022 Reserves is 12.1%. • The life of mine mining sequence is modelled using MAP3D (a linear-elastic method) to provide guidance on favourable sequences that will minimise the adverse effects of induced stress.
Environmental	• Dugald River operates under Environmental Authority EPML00731213 issued by the Department of Environment, Heritage Protection on 12 August 2012 and amended on 7 June 2013. • Non-Acid Forming (NAF) and Potentially Acid Forming (PAF) waste rock are distinguished by a north-south striking Limestone and Undifferentiated Black Slate lithological boundary respectively. Volumes are estimated and managed by site procedures. With limited stockpile space on the surface, all PAF waste rock is stored temporarily on the surface but used as underground rockfill with only NAF waste rock stored on the surface. • The north mine area uses waste rock as backfill, and the south mine is backfilled with paste fill generated from tailings. Cemented Rock Fill (CRF) is also used in discrete production areas in the upper part of the orebody.
Infrastructure	• Currently, the DR mine is operating via an electricity grid feed from Diamantina Power Station gas-fired power station on the southern outskirts of Mount Isa. • Gas for the power station is supplied via the Carpentaria pipeline, with a compression station in Bellevue. • Cloncurry airport is used by commercial and charter airlines flying to and from Townsville, Cairns and Brisbane and operates as both a commercial and fly-in–fly-out (FIFO) airport. • Existing surface infrastructure includes: ○ An 11 km sealed access road from the Burke Developmental Road, which incorporates an emergency airstrip for medical and emergency evacuation use; ○ Permanent camp & recreational facilities; ○ Telstra communication tower; ○ Ore and waste stockpile pads; ○ Contaminated run-off water storage dams; ○ Change house facilities for mine and processing personnel; ○ Office buildings, including emergency medical facilities;

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
	- Core shed; - Fuel farm; - Bore water fields and raw water supply lines; - Processing plant and Assay Laboratory; - Paste plant; - Tailings storage facility; - Mobile equipment workshop and supply warehouse - UG Ventilation Exhaust Fans x 3 - Bulk Air CoolingAir-Cooling Plant supplying chilled air to North and South Mines
Costs	• The estimation of capital cost for the Dugald River project was derived from first principles in the 2022 LoA schedule and is to be refined through operation reviews. The financial model captures the transition of mining operations to an owner miner model. Phase 1 (production) received board approval in 2022, and Phase 2 (development) is forecast for 2026. • The MMG commercial department estimated the mining operating costs for the OR evaluation using first-principles. Costs were inclusive of Operating and Sustaining Capital. Costs are in Australian dollars and are converted to US dollars at the applicable exchange rate. • Deleterious elements Mn. and to a lesser extent Fe, are to be controlled by metallurgical blending. It is expected that the feed for flotation will be blended to maintain Mn (and to a lesser extent Fe) within the contractual range for concentrate sales and thus not expected to attract additional costs and penalties. • The MMG finance department supplies the commodity price assumptions. The Dugald River Ore Reserve applied the January 2022 guidance. • The long-term exchange rate used the January 2022 Long-Term MMG guidance and assumptions supplied by the MMG Business Evaluation department. • The road freight and logistics for domestic and export sales have been updated using the costs from the 2022 budget. The additional costs for storing and ship loading of concentrate in Townsville are included. For the 2022 Ore Reserves, the storage and ship loading cost has been added to the freight and logistics cost for export. The freight and logistics costs for the domestic sale of concentrate includes the sea freight cost based on an agreement with Sun Metals. • Treatment and refining charges are based on MMG's estimate as contracts are currently under review. • Queensland State Government royalty's payable are prescribed by the Minerals Resources Regulation 2013 and are based on a variable ad valorem rate between 2.5% to 5.0% depending on metal prices. Freehold leases have been identified and applied to production that falls within them.
Revenue factors	• Realised Revenue Factors (Net Smelter Return after Royalty) • As part of the 2022 Ore Reserves process, the net smelter return (after royalty) (NSR) has been revised with the latest parameters and compared against the previous 2021 NSR calculation that was used for the 2021 Ore Reserve.

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
	• The NSR is used to convert the various zinc, lead and silver grades into a single number for cut-off estimation and determining if the rock is ore or waste. • Treatment and refining charges, royalties and transportation costs for different commodities were supplied by MMG Group Finance and have been included in the NSR calculation. • The MMG Group Finance department provides assumptions of commodity prices and exchange rates and are based on external company broker consensus and internal MMG analysis.
Market assessment	• Global zinc mine production increased over 6% during 2021 to finish the year well above the COVID-19 impacted lows seen during 2020. Government stimulus in the form of infrastructure spending combined with increased manufacturing activity was the driver of this zinc consumption growth. • The zinc concentrate market was in surplus during 2021 with smelters able to adequately cover their concentrate requirements. A surplus concentrate market is expected to continue in the short to medium term as higher metal prices encourage new mine production and a number of existing mines have announced production expansions. Smelters have received and accepted Dugald River Zinc concentrate quality in China, Australia, Japan and Korea throughout 2021. • The zinc price has increased in 2022, primarily due to the tightness in metal markets and the conviction amongst investors that government stimulus will continue to enable a strong rebound in economic growth and fuel demand for commodities. Investor confidence in commodities is expected to be sustained in the medium term. World zinc consumption growth is forecast to average 1.7% p.a. from 2022 to 2027, to 15.5Mtpa (Wood Mackenzie, 2022). • In the longer term, mine production is expected to decline due to the forecast closure of mines as ore reserves are depleted. World zinc consumption growth is forecast to average 1.3% p.a. from 2028 to 2040, reaching 18.3Mtpa by 2040 (Wood Mackenzie, 2022). While there are a few new mines at the advanced stage to replace this depletion, new zinc projects tend to be more economically and operationally challenging than existing or recently closed operations due to a range of factors including grade, size and location. Financing for new projects can also become difficult if there are periods of price uncertainty.
Economic	• Economic modelling of the total mining inventory shows positive annual operating cash flows. Applying the revised costs, metal prices and exchange rate (MMG January 2022 Long-Term economic assumptions) returns a positive NPV. MMG uses a discount rate supported by MMG's Weighted Average Cost of Capital (WACC) and adjusted for any country risk premium (as applicable) based on an internal evaluation of the country risk for the location of the deposit. • Sensitivities were run on the economic evaluation and showed a positive NPV is maintained when operating costs increase by 10% and if the Zinc grade drops by 10%. • All evaluations were done in real Australian (AU) dollars.

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
Social	• The nearest major population centre for the Mine is Cloncurry with a population of approximately 3,500, and the largest employers are mining, mining-related services and grazing. • Regarding Native Title, the Kalkadoon # 4 People filed a claim in December 2005 covering an area which includes the project area, water pipeline corridor and part of the power line corridor. This claim over 40,000 square kilometres of land was granted in 2011. • MMG has concluded a project agreement with the Kalkadoon People dated 6 April 2009. Under this agreement, the claimant group for the Kalkadoon are contractually required to enter into an s31 Native Title Agreement under the Native Title Act 1993. The agreement sets out the compensation payments and MMG's obligations for training, employment and business development opportunities if/when the project is commissioned. MMG has developed an excellent working relationship with the Kalkadoon claimant group. MMG has instituted the MMG/KCPL Liaison Committee, which meets at least twice yearly and addresses the Kalkadoon agreement obligations for both parties. An official 'Welcome to Country' ceremony was held for MMG in late March 2012. • The Mitakoodi and Mayi People filed a claim in October 1996 and covered an area that includes part of the power line corridor. While the Mitakoodi have not yet been granted Native Title, MMG continues to liaise with them as a stakeholder due to the 'last claimant standing' legal tenement. • MMG has registered an Indigenous Cultural Heritage Management Plan (CHMP) which covers the entire project area and has undertaken all necessary surveys and clearances for all disturbed groundwork undertaken on site to date without any issues or complications. The CHMP was developed in consultation with the Kalkadoon # 4 People. • Regarding Social and Community support, MMG has a commitment to align all social development programs, sponsorship and community contributions with Goals 1-6 of the United Nations Sustainable Development Goals (SDG's). Local relationships remained healthy throughout 2022. • Dugald River Mine has supported several events in the Cloncurry Community recently; examples include Movie Nights, School Stationary Fundraisers, Breakfast Clubs, Sporting Events, Formal Training with residents, Careers Days and MINEX Mount Isa. Further, there is heightened support for local businesses with additional procurement of materials and services from vendors in the NW Qld Region. Over $20M near-mine expenditure of business services from Dugald River Mine were conducted in 2021, within $80M spent inside the state of Queensland, within $200M spent within Australia. • Dugald River Mine is also committed to minimising its impact. The site monitors ambient air quality around the mine daily and monitors for PM10 size particulates and arsenic, cadmium, copper and lead surrounding the residence of our nearest sensitive receptor. The site also uses tailings in its backfill to reduce the requirement for storage of tailings on surface, and also supplements its mine backfill requirements with mined waste rock to reduce the requirement for potentially acid forming waste rock to be stored on surface. It is preparing its Progressive Rehabilitation and Closure Plan for submission to the Qld Government in 2022.

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
	• The site has an office in the town of Cloncurry that is occupied by team members with dedicated roles in community and administration, and maintaining a positive working relationship with the local community, the region and broader stakeholders and parties remains a very high priority.
Other	• There is no identified material naturally occurring risks. • The legal agreements are in place. There are no outstanding material legal agreements. • The grade of the zinc concentrate is dependent on the Fe and Mn content of the sphalerite, but this dependence is taken into account by the algorithms presented earlier. • The government agreements and approvals are in place. There are no unresolved material matters on which the extraction of the Ore Reserves is contingent.
Tailings	• The tailings storage facility is constructed within a valley of the Knapdale Range, enclosed by a 37m high embankment dam wall constructed with rock, clay fill and an elastomeric BGM (bituminous geomembrane) liner on the upstream side. The dam was designed and constructed in accordance with ANCOLD (Australian National Committee on Large Dams) guidelines and the requirements of the site's Environmental Authority. • The dam contains a return water system to enable recycling of the water deposited with the tailings as well as rainfall run-off back to the processing plant. • It is proposed that the peak operational throughput of the processing plant now be 2.0 Mtpa, with an average of 40% of the tailings being sent to paste and the remaining 60% thickened to a solids density of 55 % solids. • Based on current production plans the tailings dam capacity will need to be increased in 2027, achievable by raising the embankment wall.
Classification	• Ore Reserves are reported as Proved and Probable. • Only Measured (19.7%) and Indicated (24.6%) material of the Mineral Resources has been used to inform the Proved and Probable Ore Reserves. No Inferred Mineral Resources are included in the Ore Reserves.
Audits or reviews	An External Review and Audit was last carried out for the 2021 Ore Reserves by AMC Consultants No external audits have been undertaken for the 2021 Mineral Resource. An External Review and Audit is planned for the 2022 Mineral Resource. AMC considers he 2021 ORE to be reasonable and supported by the data supplied by MMG and complies to internal MMG standards.

Discussion of relative accuracy /confidence	• The 2022 reserve has been based on local estimates with diamond drilling assays informing tonnes and grade to define stopes and associated detailed development design. In addition, modifying factors have been based on the results of the operating mine with comparison of actual production data and reconciliations. Therefore, there is high level confidence in the accuracy of the reserve estimate to within +/- 10%. • The key risks that could materially change or affect the Ore Reserve estimated for Dugald River include: Geotechnical Parameters and Mining Dilution: • Modelled dilution, mining recovery factors are compared during stope reconciliation allowing for high confidence in factors used for ELOS, mining method and fill type used. Good understanding and high confidence of recovery factors from reconciliation data ensures dilution estimation is appropriately considered and applied to stoping areas. Cut Off Grade: • Cut off values are calculated with consideration of ground support and haulage at depth, fill type and power requirements for refrigeration for defined mining areas. This has ensured greater confidence in the cutoff value instead of applying global value for the whole orebody and a low risk in the reserve estimation process. Ore Reserve Classification: • Resource Delineation & Reserve Definition drilling informs Proved and Probable tonnage and grades before mining. Ore Reserves are based on all available relevant information. Identification and confirmation through diamond drilling of potential Nexus zones, along strike, may present localised additional material. The Ore Reserve estimate confidence is high as modifying factors are compared with actual production data and historical reconciliations. Infrastructure: • All major infrastructure has been installed at Dugald and maintained to a high standard. A refrigeration plant was commissioned during November 2021. Future development and diamond drilling activities would have been impacted during the summer months if this piece of infrastructure were not installed. There is high confidence that further refrigeration expansions and use of ventilation on demand infrastructure will ensure airflow requirements are met in pre-production areas. Processing: • Increase in diluents, carbon and manganese have potential to impact recoveries and payable penalties. However, blending of high manganese parcels of zinc concentrate will mitigate any such potential. Site Operating and Capital Costs: • Having been in production for several years, the mine's operating and capital costs are understood in detail. It should be noted, however, that with the transition to owner operator, capital and operating costs are projections and not aligned to historical costs. • Allowance for additional support requirements at depth and rehabilitation of development drives have been made to mitigate any under estimation of support costs. Significant change in costs is considered a low risk. Whilst the industry is in a high inflation environment, the net present value of the reserves remains positive within a reasonable range of movement of operating costs.

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
	Revenue Factors: • Metal prices are dependent on market sentiment and it is accepted that the zinc price cycle is uncontrollable and therefore is a moderate risk. Long term forecasts are made in consultation with market analysts and the corporate finance team to establish the most likely future positions. Transition to Owner Operator: • Mining may be interrupted or below current rates during the 1st phase of the transition project (6mo period over '22-'23), or through 2nd phase (6mo period forecast for 2026). The Mine schedule has been de-rated in 2023 to 1.75Mt for reserve schedule verse internal plan of 1.80Mt. • A Standalone transition project management team has been assembled. • The Total forecast period of disruption is 12mo over a 13yr LOM plan, and any lost production is deferred, and not lost in its entirety.

5.3.3 Expert Input Table

In addition to the Competent Persons, the following individuals have contributed vital inputs to the Ore Reserves determination. These are listed below in Table 17.

In compiling the Ore Reserves, the Competent Person has reviewed the supplied information for reasonableness but has relied on this advice and information to be correct.

Table 17 Contributing Experts – Dugald River Ore Reserves

EXPERT PERSON / COMPANY	AREA OF EXPERTISE
Andrew Fowler, Principal Geologist Mining Plus (Melbourne)	Geological Mineral Resources
Claire Beresford Senior Analyst Business Evaluation, MMG Ltd (Melbourne)	Economic Evaluations
Simon Ashenbrenner, Manager Zinc/Lead Marketing, MMG Ltd (Melbourne)	Marketing, Sea freight and TC/RC

Iain Goode, Superintendent – Processing Support MMG Ltd (Dugald River) Cathy Martin, Senior Metallurgist MMG Ltd (Dugald River)	Metallurgy
Michel Stevering, General Manager Commercial & Business Support, MMG Ltd (Australian Operations)	Mining capital and Operating Costs
Jeff Price, Principal Geotechnical Engineer, MMG Ltd (Melbourne)	Geotechnical
Peter Willcox, Senior Mining Engineer – Long Term Planning, MMG Ltd (Dugald River)	Mining Parameters, Cut-off estimation, Mine Design and Scheduling
Jonathan Crosbie, Group Manager - Closure & Remediation MMG Ltd (Melbourne)	Mine Closure and Remediation

5.3.4 Statement of Compliance with JORC Code Reporting Criteria and Consent to Release

This Ore Reserves statement has been compiled by the guidelines defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("2012 JORC Code").

5.3.4.1 Competent Person Statement

I, Phil Bremner, confirm that I am the Competent Person for the Dugald River Ore Reserves section of this Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having more than five years experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Fellow of The Australasian Institute of Mining and Metallurgy
- I have reviewed the relevant Dugald River Ore Reserves section of this Report, to which this Consent Statement applies.

I am a principal mining consultant at Oreteck Mining Solutions at the time of the estimate.

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Dugald River Ore Reserves section of this Report is based on and reasonably and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to the Dugald River Ore Reserves.

5.3.4.2 Competent Person Consent

Pursuant to the requirements Clause 9 of the JORC Code, 2012 Edition (Written Consent Statement)

With respect to the sections of this report for which I am responsible – the Dugald River Ore Reserve - I consent to the release of the 2022 Mineral Resources and Ore Reserves Statement as at 30 June 2022 Executive Summary and Technical Appendix Report and this Consent Statement by the directors of MMG Limited:

This signature was scanned for the exclusive use in this document – the *MMG Mineral Resource and Ore Reserve Statement as at 30 June 2022* – with the author's approval. Any other use is not authorised.

01/10/2022

Philip Bremner FAusIMM (#105847)

Date:

This signature was scanned for the exclusive use in this document – the *MMG Mineral Resource and Ore Reserve Statement as at 30 June 2022* – with the author's approval. Any other use is not authorised.

Nikki Dickinson
Melbourne, VIC

Signature of Witness:

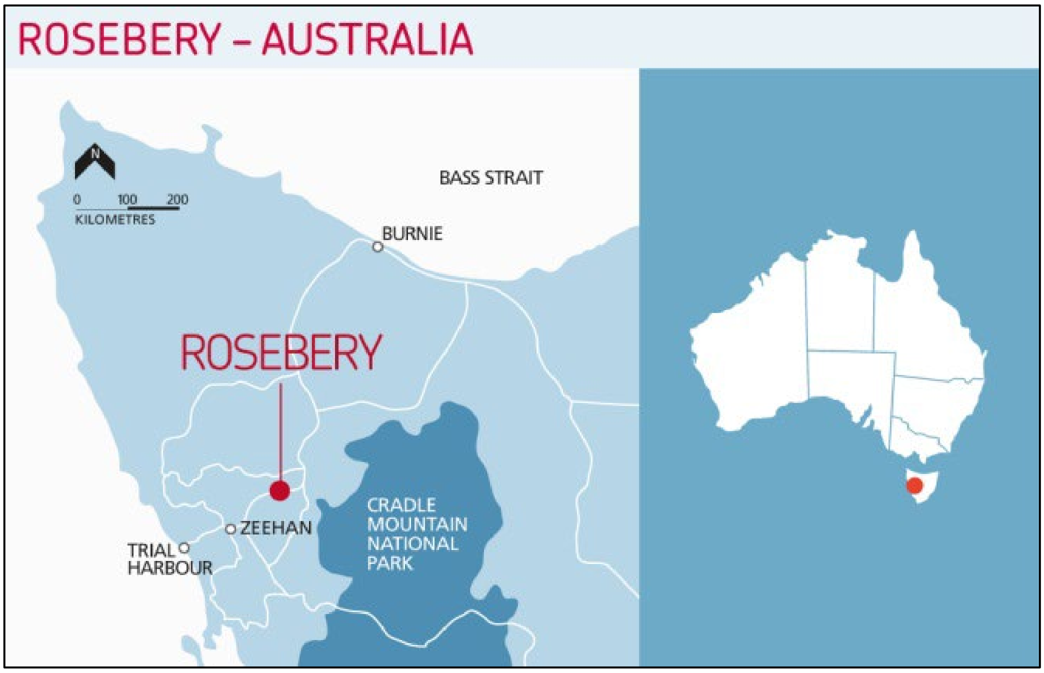
Witness Name and Residence: (e.g. town/suburb)

6 ROSEBERY

6.1 Introduction and Setting

The Rosebery base and precious metals mining operation is held by MMG Limited and is located within Lease ML 28M/1993 (4,906ha), on the West Coast of Tasmania, approximately 120km south of the port city of Burnie (Figure 6-1). The main access route to the Rosebery mine from Burnie is via the B18 and the Murchison Highway (A10).

Figure 6-1 Rosebery Mine location



The Rosebery Operation consists of an underground mine and surface mineral processing plant. The mining method uses mechanised long-hole open-stoping with footwall ramp access. Mineral processing applies sequential flotation and filtration to produce separate concentrates for zinc, lead and copper. In addition, the operation produces gold/silver doré bullion. The mine has been operating continuously since 1936. Rosebery milled approximately 940 kt of ore for the year ending 30 June 2022.

6.2 Mineral Resources – Rosebery

6.2.1 Results

The 2022 Rosebery Mineral Resources are summarised in Table 18. The Rosebery Mineral Resources is inclusive of the Ore Reserves.

Table 18 2022 Rosebery Mineral Resources tonnage and grade (as at 30 June 2022)

Rosebery Mineral Resources											
							Contained Metal				
Rosebery[1]	Tonnes (Mt)	Zinc (% Zn)	Lead (% Pb)	Copper (% Cu)	Silver (g/t Ag)	Gold (g/t Au)	**Zinc ('000 t)**	**Lead ('000 t)**	**Copper ('000 t)**	**Silver (Moz)**	**Gold (Moz)**
Measured	7.2	7.4	2.7	0.20	120	1.2	530	200	14	28	0.28
Indicated	4.6	6.9	1.9	0.18	75	1.1	310	88	8.3	11	0.16
Inferred	7.9	7.0	2.1	0.19	77	1.1	560	170	15	20	0.27
Total	**20**	**7.1**	**2.3**	**0.19**	**92**	**1.1**	**1400**	**450**	**38**	**58**	**0.71**
Stockpiles											
Measured	0.01	7.3	3.8	0.21	144	1.5	0.9	0.5	0.03	0.06	0.001
Total	**0.01**	**7.3**	**3.8**	**0.21**	**144**	**1.5**	**0.9**	**0.5**	**0.03**	**0.06**	**0.001**
Total Rosebery	**20**	**7.1**	**2.3**	**0.19**	**92**	**1.1**	**1,400**	**450**	**38**	**58**	**0.71**

[1] Cut-off grade is based on Net Smelter Return (NSR), expressed as a dollar value of A$155/t
Figures are rounded according to JORC Code guidelines and may show apparent addition errors.
Contained metal does not imply recoverable metal.

The 2022 Rosebery Mine Mineral Resources has increased by 3.1Mt since last reported in 2021. Changes affecting the final reporting number include the following:

- New drilling, mapping and modelling finding an additional 1.92Mt of Mineral Resource, adding to the Middle Mine (RS, V and H lenses), Lower Mine (K and P lenses) and U lens.
- Mineral Resource extended north with the addition of Z lens to the Lower Mine.
- 0.94Mt mining depletion in the Lower Mine between 1 July 2021 and 30 June 2022.
- Additional material in close proximity to remnant voids removed from the Mineral Resource in the Middle Mine after review and reclassification.
- Two panels removed from the Mineral Resource in the Upper Mine (B lens) after new information became available that shows historic mining activity and extraction.
- Updates to metal prices in 2022 and decrease in NSR cut-off from $174 in 2021 to $155 following reclassification of the Resource cut-off grade to align with Ore Reserve.

6.2.2 Mineral Resources JORC 2012 Assessment and Reporting Criteria

The following information provided in Table 19 complies with the 2012 JORC Code requirements specified by "Table-1 Section 1-3" of the Code.

Table 19 JORC 2012 Code Table 1 Assessment and Reporting Criteria for Rosebery Mineral Resources 2022

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
Sampling techniques	• All samples included in the Rosebery Mineral Resources estimate are from diamond drill core. The standard sampling length is 1m with a minimum of 0.4m and maximum of 1.5m. Samples are half core split (92.4% of samples) or whole core (7.6% of samples), crushed and pulverised to produce a pulp sample (>85% passing 75µm). • Diamond drill core is selected by geologists relative to geological contacts, then marked and ID tagged for sampling. Sample details and ID's are stored in a database for correlation with laboratory assay results. • Measures taken to ensure sample representivity include sizing analysis and insertion of field duplicates. • There are no inherent sampling problems recognised. The sampling techniques applied to Rosebery drill core are considered appropriate for the style of mineralisation.
Drilling techniques	• The drilling type is diamond core drilling from underground using single, or in select cases double tube coring techniques. • From 2021 all underground drill holes are orientated using a Boart Longyear TruCore orientation system. Between 2014 and 2020, drill core was oriented on an ad hoc basis. • Drilling undertaken from 2012 is a mixture of LTK48, LTK60, NQ, NQ2, NQTK, BQTK and BQ in size with most of the drilling being NQ2 (at least 62%). • Historical drilling (pre-2012) is a mixture of sizes ranging from LTK, TT, BQ, NQ, HQ to PQ.
Drill sample recovery	• Diamond drill core recoveries average 97%. Drill crews mark and define lost core intervals with blocks. Sample recovery is measured and recorded in the drill hole database. • The drilling process is controlled by the drill crew and geological supervision provides support for maximising sample recovery and ensuring appropriate core presentation. No other measures are taken to maximise core recovery. • There is no demonstrative correlation between recovery and grade. • Preferential loss/gain of fine or coarse material is not significant and does not result in sample bias. However, broken ground is typically encountered at geological contacts away from mineralisation or close to footwall/hanging wall rather than within mineralised zones. • If more than 2% core loss occurs in a mineralised zone, the hole is re-drilled.
Logging	• All diamond drill core has been geologically logged by geologists to support Mineral Resource estimation as well as mining and metallurgy studies. Geotechnical logging is limited to RQD measurements (rock quality designation).

<table>
<tr><th colspan="2">Section 1 Sampling Techniques and Data</th></tr>
<tr><th>Criteria</th><th>Commentary</th></tr>
<tr><td></td><td>• Geological logging is mostly qualitative, focusing on classifying stratigraphy, lithology and alteration but quantitative data is also captured, for example mineral percentages and structural measurements.
• The total length of drill holes is geologically logged and entered directly into the database using laptop computers.
• Core photography records are comprehensive from 2013 to present but core photos for historic drilling are sporadic, incomplete or lost.</td></tr>
<tr><td>Sub-sampling techniques and sample preparation</td><td>• Prior to May 2016, pulps were delivered to ALS Burnie laboratory for XRF analysis. Since May 2016, core samples are delivered to ALS Burnie for sample preparation and XRF analysis only. Full suite analysis is completed at ALS Townsville laboratory from October 2016 onward. During 2021, due to congestion at ALS laboratories, 3,000 samples were sent to ALS Adelaide for preparation and forwarded to ALS Brisbane for analysis.
• From 2018, samples are being processed in the following manner: Dried, primary crushed to 6mm then secondary crushed to 3.15mm, pulverised to 85% passing 75µm. Sizing analysis is carried out on 1:20 pulps. Samples are generally not split prior to pulverisation provided they weigh less than 3.5kg. The resulting pulps are bagged, labelled and boxed for despatch to ALS Brisbane and ALS Townsville.
• Prior to 2018, samples were processed in the following manner:
○ Between 2005 and 2010: Dried, crushed and pulverised to 80% passing 75µm. Sizing analysis is carried out on 1:20 pulps.
○ Between 2010 and 2016: Dried, crushed to 2mm; cone split to give primary and duplicate samples with the remainder rejected. Pulverised to 80% passing 75µm. Sizing analysis is carried out on 1:20 pulps. Samples despatched to ALS Burnie.
○ Between 2016 and 2018: Dried, crushed to 25mm, pulverised to 85% passing 75µm. Sizing analysis is carried out on 1:20 pulps. Samples are generally not split prior to pulverisation provided they weigh less than 3.5kg. The resulting pulps are bagged, labelled and boxed for despatch to ALS Brisbane and ALS Townsville.
• From late 2019, whole core was sampled for selected infill drilling (less than 30m spacing). Exploration and Resource Testing (60m spacing) drilling continued to be half core sampled, as well as drilling in areas of known complex geology. Whole core sampling is conducted with approval from Mineral Resources Tasmania (MRT) to assist with the lack of core storage space available at Rosebery.
• Disposal of non-sampled sections only occurs after verification of laboratory results and after consultation with the Competent Person, Senior Resource Geologist and Senior Mine Geologist.
• Sample representivity is checked by sizing analysis and field duplicates at the crush stage.
• The sample types, nature, quality and sample preparation techniques are considered appropriate for the style of the Rosebery mineralisation.</td></tr>
<tr><td>Quality of assay data and</td><td>• From 2016 the assay methods undertaken by ALS Brisbane and ALS Townsville for Rosebery core samples were as follows:
○ Analysis of Ag, Zn, Pb, Cu and Fe by four acid ore grade digests, ICPAES finish with extended upper reporting limits (ALS Brisbane). In addition to these main</td></tr>
</table>

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
laboratory tests	elements, another 29 elements are reported as a part of this method. Analysis of Au by fire assay, three acid digest and flame assay AAS (30g sub-sample charge) (ALS Townsville). • Prior to 2016, the assay methods undertaken by ALS Burnie for Rosebery core samples were as follows: o Between 2005 and 2010: 3-Acid Partial Digest (considered suitable for base metal sulphides). Analysis of Pb, Zn, Cu, Ag, Fe by Atomic Absorption Spectrometry (AAS). Au values were determined by fire assay. o Between 2010 and 2016: Dried, crushed to 2mm; cone split to give primary and duplicate samples with the remainder rejected. Pulverised to 80% passing 75µm. Despatch to ALS Burnie. Analysis of Pb, Zn, Cu and Fe by X-Ray Fluorescence (XRF) applying a lithium borate oxidative fusion (0.2g sub-sample charge). Analysis of Ag by aqua regia digest and Atomic Absorption Spectrometry (AAS) (0.4g sub-sample charge). Analysis of Au by fire assay, three acid digest and flame assay AAS (30g sub-sample charge). • The methods above are considered effectively total digestion and are suitable for Mineral Resource estimation at Rosebery. • The following items are included in all sample batches to assess the quality and precision of laboratory results: o Matrix-matched (CRM) or OREAS certified standards and field duplicates are inserted at a ratio of 1:20 to routine samples and dolerite blanks at a ratio of 1:50. Duplicates are taken as either coarse crush or pulp repeats. o CRM standards (LBM-20, MBM-20 and HBM-20) were routinely used from early 2020, replacing the "18" series matrix-matched standards. o All standards are photographed with their sample bags and ID's at the time of sampling to verify laboratory results and ensure sample lists are in the correct order. o Quartz flushes are inserted immediately after high grade sample groups to check laboratory crush and pulverisation performance. • QAQC analysis during the reporting period showed the following: o Insertion rates for standards and duplicates were 1:19 to routine samples and blanks were 1:46 to routine samples, conforming to MMG's work quality requirements. o Standards: Determination issues continued for the low base metal standard (LBM-20) with approximately 6% failing for Au and 16% failing for Fe. One cause of the failure rate is thought to be due to differences in precision of the analytical method used by the assaying laboratory (AA method; reported to 2 decimal places), compared to the precision of the method used to certify the CRM (Peroxide fusion ICP method; reported to 3 decimal places). This means the QAQC analysis undertaken by MMG assesses the assay results compared to the CRM to a degree of precision that the AA method in unable to achieve. This difference accounts for over half of failures, and if ignored, leaves a 2% failure rate for LBM-20 Au. All failures occurring within the target mineralised zone were re-assayed. o From March 2022, LBM-20 is no longer being used. New CRM standards are being prepared for 2022 to replace the "20" series, which will be certified with the 4A ICP method to match ALS laboratory results.

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<tr><th colspan="2">Section 1 Sampling Techniques and Data</th></tr>
<tr><th>Criteria</th><th>Commentary</th></tr>
<tr><td></td><td>

Blanks: Most failures occurred in February 2021 (63 failures) across all three ALS labs. ALS investigated the issue and found that insufficient cleaning of the crushers and LM5 bowls occurred between samples. Corrective actions included re-training of staff and an upgrade of air guns and dust extraction systems. All failures checked were less than 1% (grade) of the preceding crushed samples, except for one failure which was identified as a sample swap. A major reduction of failures was observed for the remainder of the year (total of 9 additional failures).
Sizing: A multitude of sizing failures occurred in August 2021 (1.1% of samples). An internal ALS investigation found that a bent shaft in the Boyd crusher at ALS Brisbane was affecting the fineness of the crushed products. The Boyd crusher has since been rebuilt and an Orbis crusher is also now in use at the lab. ALS acknowledges that the analysed samples would still be adequately representative given that the sub-split of fine crushed material is on the order of ~1.5kg.
Duplicates: Pulp duplicates have performed better than crush duplicates during the reporting period. Repeatability is consistent for all pulp and crush duplicates with all elements falling within 5% relative difference from their original samples, with Au crush duplicates being the highest (4.2%). The average coefficient of variation (CV) of all duplicates are below the reference CV outlined in internal MMG guidelines. R2 values indicate that Au crush and pulp duplicates show the least amount of correlation (0.78 and 0.58 respectively). This is attributed to the nuggetty nature of these metals.
Quartz flushes: A total of 16 failures occurred in the previous reporting period (February 2021) due to issues with the crushers at ALS labs. Since corrective actions have been in place only 1 failure occurred during the remainder of the year.

ALS Brisbane and Townsville release QAQC data to MMG for analysis of internal ALS standard performance. The performance of ALS internal standards appears to be satisfactory.
Batches that fail quality control criteria (such as standards reporting outside set limits) are entirely re-assayed.
An umpire laboratory (Intertek Perth) is used to re-assay 5% of ore-grade pulps returned from the ALS laboratory. Analysis of routine sample results and control sample performance is reported quarterly.
No data from geophysical tools, spectrometers or handheld XRF instruments have been used in estimation of the Mineral Resource.
The above methods are considered effectively total and suitable for Mineral Resource estimation at Rosebery.
</td></tr>
<tr><td>Verification of sampling and assaying</td><td>

All mineralised intersections are reviewed and verified by numerous geologists by comparing assay results to core photos and logging.
Intentional twinning of mineralised intersections has occurred only in select cases where confirmation of historical drilling results was required, for example where old drillhole traces could have been affected by magnetics. In 2020, a drill program aiming
</td></tr>
</table>

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	to twin 5% of historic drillholes in the Middle Mine area was completed to verify previous assay results and confirm spatial location of mineralised intersections. • Unintentional close spaced drilling can occur from underground drill patterns due to rapid changes in lithological competencies, but generally follow-up drilling is completed to achieve the appropriate drill spacing needed to support Mineral Resource estimation. • Lab results are received as batches (a batch per drillhole) and imported into the database by geologists. The performance of duplicates, blanks and standards is assessed for each batch by Project and Senior Geologists. Batches with failed standards are flagged and re-assay is requested for relevant sample sets. • Returned re-assayed data is reviewed to determine which batch is to be used for Mineral Resource data exports. Batch status is recorded in the database for audit purposes. • Database validation algorithms are run to check data integrity before being used for interpretation and Mineral Resource estimation. Unreliable data (e.g. unverifiable assay data) is permanently flagged in the database and excluded from data exports used in Mineral Resource estimation. • Since August 2014, all data below detection limit is replaced by half detection limit values. Prior to this date, the full detection limit was used. • No adjustments have been made to assay data – if there is any doubt about the data quality or location of a drillhole, it is excluded from data exports used for Mineral Resource estimation
Location of data points	• Drillhole collars are surveyed by licenced Mine Surveyors. Geologists request underground drill sites to be marked up with a collar pin drilled into the wall at the drill site coordinates. After a hole is drilled, the collar point is tagged with a metal label (of its hole ID). • Collar positions of underground drillholes are picked up by surveyors using Leica TS16, TS15 and MS60 total stations. Collar positions of surface drillholes are picked up using differential GPS. Historic surface drillhole collars were surveyed using a theodolite or handheld GPS but many of those collars have been resurveyed and updated in the drillhole database. • Diamond drillers align drill rigs underground and on surface using a Downhole Surveys DeviAligner tool to setup on drillhole orientations, as directed by geologists. • Since March 2018, north seeking gyro tools (Reflex Gyro Sprint-IQ and Axis Champ Gyro) have permanently replaced all other downhole survey instruments underground, because they are unaffected by magnetics, quick to use and highly accurate. Selected historic surface exploration drillholes have been surveyed using a Stockholm Precision Tools Gyro Tracer north seeking gyro (parent holes only). • Prior to March 2018, all diamond drillholes were surveyed using a magnetic single-shot Reflex Ezi-shot tool at 30m intervals to monitor drillhole progression. A full downhole gyro survey was then completed after a drillhole reached end of hole. Where a gyro downhole survey was not practicable due to equipment limitations, a multi-shot survey was completed at 6m intervals.

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	• The coordinate system used is referred to as the Cartesian Rosebery Mine Grid, offset from Magnetic North by 23°52’47” (as at 1 July 2020) with mine grid origin at MGA94 E=378981.981, N=5374364.125; mine grid relative level (RL) equals AHD+1.490m+3048.000m and is based on the surface datum point Z110. • Topographic data derived from LIDAR overflights have been carried out and correlated with surface field checks to confirm relativity to MGA and Rosebery Mine Grid.
Data spacing and distribution	• The Rosebery mineralised zones are drilled on variable spacing dependent on lens characteristics and safe access to drill platforms. Drill density ranges from 10-25m to 40-60m along strike and up and down dip of mineralised zones. • Wider spaced drilling exists in various areas of the deposit but is only adequate for establishing geological continuity, not defining grade continuity. • Core samples are not composited prior to being sent to the laboratory, however, the nominal sample length is generally 1m. • Observations of small-scale mineralisation geometry and structural characteristics were traditionally made by manual geological mapping, scanning and digitising to establish geological continuity. • Since 2016, high quality photogrammetry (ADAM tech) has replaced mapping in production areas of the mine. Most development faces are captured, and full coverage of walls and backs are obtained by trimming overlapping sections of adjoining captures. Geological observations are digitised, and this data is integrated into construction of the mineralisation domains (wireframes). • Drillhole spacing in combination with level and face mapping is satisfactory to establish the degree of geological and grade continuity appropriate for Mineral Resource and Ore Reserve estimation and the classifications applied.
Orientation of data in relation to geological structure	• Drilling orientation is designed perpendicular to lens strike, typically in the form of radial fans. Mineralised lenses of the Rosebery deposit strike roughly north-south and dip east (45° on average). Fans are generally drilled from footwall drives (from west to east). Alternatively, some holes are drilled from hanging wall drives (from east to west). • Drill fan spacing and orientation is designed to provide evenly spaced, high angle intercepts of the mineralised zones where possible, aiming to minimise sampling bias related to intersection orientation. Some drill intersections are at low angle to the dipping mineralisation due to limitations of available drill platforms. • Where historic drillholes from surface or older holes longer than 400m exist, attempts may be made to confirm mineralised intercepts by repeat drilling from newly developed drives. Deep drill intersections are excluded from Mineral Resources modelling where duplicated by new underground drillholes. • Drilling orientation is not considered to have introduced any sampling bias.
Sample security	• Personnel cutting and organising samples are adequately trained and supervised. Samples are stored in a locked compound with restricted access during preparation and storage.

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	• Whole and half core samples for despatch to ALS Burnie are stored in sealed containers with security personnel at the Rosebery Mine entry gate overseeing collection by ALS couriers. • Receipt of samples are acknowledged by ALS via email and checked against expected submission lists. • Assay data is returned via email as .sif files for direct importation to the drillhole database and archived online as a backup.
Audit and reviews	• Several audits of the ALS Burnie, ALS Brisbane and ALS Townsville facilities were undertaken during the reporting period by MMG representatives, however less frequently than previous years due to the global pandemic. • An increase in dust at the Burnie Lab where samples are prepared was noted during an audit in late 2020, posing a minor risk to sample cross contamination and to sample preparation staff. ALS Burnie have addressed this issue by building a new sample preparation shed with an appropriate dust extraction system. • Any issues identified during audits and reviews in the past have been rectified.

Section 2 Reporting of Exploration Results	
Criteria	**Commentary**
Mineral tenement and land tenure status	• Rosebery Mine Lease ML 28M/1993 includes the Rosebery, Hercules and South Hercules polymetallic mines. It covers an area of 4,906ha. • ML28M/93 was granted to Pasminco Australia Limited by the State Government of Tasmania in May 1994. This lease represents the consolidation of 32 individual leases that previously covered the same area. • Tenure is held by MMG Australia Ltd for 30 years from 1 May 1994. The lease expiry date is 1 May 2024. • The consolidated current mine lease includes two leases; (consolidated mining leases 32M/89 and 33M/89). These were explored in a joint venture with AngloGold Australia under the Rosebery Extension Joint Venture Heads of Agreement. This agreement covered two areas, one at the northern and one at the southern end of the Rosebery Mine Lease, covering a total of 16.07km^2. • The joint venture agreement was between EZ Corp of Australia (now MMG Rosebery Mine) and Shell Company of Australia Limited (now AngloGold Australia Metals Pty Ltd, formerly Acacia Resources (formerly Billiton)). A Heads of Agreement was signed on 16 May 1988 with initial participating interest of 50% for each party. Other partners in the joint venture are Little River Resources Ltd and Norgold Ltd. They have a combined net smelter return royalty of 2.3695%, payable on production from the Rosebery Extension Joint Venture area. AngloGold withdrew from the joint venture on the 31 December 2001. • There are no known impediments to operating in the area.

Section 2 Reporting of Exploration Results	
Criteria	**Commentary**
Exploration done by other parties	- Tom McDonald discovered the first indication of mineralisation in 1893 when he traced alluvial gold and zinc-lead sulphide boulders up Rosebery Creek. Twelve months later an expedition led by Tom McDonald discovered the main lode through trenching operations, on what is now the 4 Level open cut. - The Rosebery deposit was operated by several different operations until 1921 when the Electrolytic Zinc Company purchased both the Rosebery and Hercules Mines. - Drilling from surface and underground over time by current and previous owners has supported the discovery and delineation of mineralised lenses at Rosebery.
Geology	- The Rosebery volcanic-hosted massive sulphide (VHMS) deposit is hosted within the world-class Mt Read Volcanics. This Cambrian volcanic belt is an assemblage of lavas, volcaniclastics and sediments deposited in the Dundas Trough between the Proterozoic Rocky Cape Group and the Tyennan Block. - Mineralisation occurs as stacked stratabound massive to semi-massive base metal sulphide lenses. The host lithology lies between the Rosebery Thrust Fault and the Mt Black Thrust Fault which all dip approximately 45° east. Ore mineralogy consists predominantly of sphalerite, galena, chalcopyrite with electrum and minor tetrahedrite. - The orebody has experienced numerous events of folding, shearing and thrusting particularly in the late Cambrian and early Devonian. Lenses in the southern portions of the deposit have experienced metasomatism and replacement by a deep Devonian granitoid resulting in variation of the mineralogy, structure and alteration in these lenses.
Drillhole information	- The Rosebery Mineral Resource database consists of 13,213 diamond drillholes providing over 466,000 samples. - No individual drillhole is material to the Mineral Resource estimate and therefore a geological database is not supplied.
Data aggregation methods	- This is a Mineral Resource Statement and is not a report on exploration results, therefore no additional information is provided for this section. - No metal equivalents were used in the Mineral Resource estimate.
Relationship between mineralisation width and intercept lengths	- Mineralisation true widths are defined by modelled 3D wireframes based on mineralised intercepts. - Typical drilling angles, relative to the geometry of mineralisation, are sub-perpendicular to perpendicular allowing true width of mineralisation to be determined. Most drillholes intersect the ore zone at angles between 40° and 90°.
Diagrams	- No individual drillhole is material to the Mineral Resource estimate and therefore diagrams are not provided.
Balanced reporting	- This is a Mineral Resources Statement and is not a report on exploration results, therefore no additional information is provided for this section.
Other substantive	- This is a Mineral Resources Statement and is not a report on exploration results, therefore no additional information is provided for this section.

Section 2 Reporting of Exploration Results	
Criteria	**Commentary**
exploration data	
Further work	- Underground diamond drilling is continually active in several areas of the mine with the intent to better define known mineralised areas (Mineral Resource to Ore Reserve conversion) as well as to further extend the Mineral Resource into areas potentially hosting additional economic mineralisation.

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
Database integrity	- The following measures are in place to ensure database integrity: ○ All drillhole data is stored in an SQL database that is backed up at regular intervals. Database integrity is managed by the Database Administration team. ○ Geological logging is entered directly into the database using laptop computers by site personnel. ○ Assays are imported directly into the database by site personnel from official data files provided by the laboratory. - Data validation procedures include: ○ Bulk data is imported into database buffer tables and validated prior to being uploaded as final records. ○ Validation routines are set up within the database to check for common data entry errors such as overlapping sample, lithological and alteration intervals. ○ Unreliable data is permanently flagged in the database and excluded from data exports used in Mineral Resource estimation. 674 drillholes (4.8%) have been excluded from the Rosebery database (e.g. due to unverifiable assay data or collar survey). ○ Random comparisons of raw data to recorded database data are undertaken prior to reporting for 5% of the additional drillholes added in any one year. No fatal flaws have been observed from this random data review
Site visits	- The Competent Person for Mineral Resources visited the Rosebery Mine in early 2022. The site visit included: ○ Review of the geological controls, wireframe construction and methodology as applied in the 2022 Mineral Resource estimate. ○ Review of modelling and estimation advancements. ○ Inspection of underground workings and ore deposit familiarisation. ○ Inspection of drillholes and mineralisation intercepts, density measurement and sampling techniques. ○ Inspection of geological data collection, and data management systems. - Regular video meetings were held between the Competent Person and site and corporate personnel throughout the reporting period.
Geological interpretation	- Economic Zn-Pb-Cu-Ag-Au mineralisation occurs as massive, semi massive and disseminated base metal sulphide lenses within the Rosebery host sequence.

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
	- Economic and near-economic mineralisation is visually identifiable in drill core and underground mine development. Drill core is routinely sampled across zones of visible sulphide mineralisation or across zones of expected mineralisation intercepts. - The method used for defining mineralisation domains for the 2022 Mineral Resource estimate is described below: o Peer reviewed exploratory data analysis undertaken for each metal to determine apportionment of a low and a high-grade domain. For example, in the Lower Mine (current production area), the low-grade zinc domain ranges from 2% to 7% Zn. o 3D wireframe models are constructed for each metal and each grade domain individually, using an Indicator interpolation method like kriging (Radial Basis Function) in combination with vein modelling, where possible, using Leapfrog Geo software. Key data inputs include composited assay data and mineralisation guidelines digitised from geological mapping and photogrammetry of development drives. o The Radial Basis Function (RBF) interpolation method uses a model representing the spatial variability of each metal and is based on directional experimental semi-variograms and drill spacing. The interpolation search directions are determined by a structural trend model created using mineralisation trend triangulations obtained from interpretations looking down the axis of regional stress. o Resultant wireframe models are visually compared to mapped or recorded mineralisation contacts from traditional geological mapping and photogrammetry. A close correlation between the models and points of observation is noted in most areas where data is available. Differences occur due to the 5m resolution of wireframes and when compared to more detailed mapping. Where major differences occur, guideline strings are used to modify the wireframes to reflect the mapping where appropriate. o The wireframe models are broadly consistent with logged and mapped observations of the main lithology units present at mine scale, namely black slate, porphyry and the hanging wall and footwall contacts within the host sequence.
Dimensions	- The Rosebery Mineral Resource extends from -300mE to 1750mE, -800mN to 3325mN, 1650mRL to 3500mRL (Rosebery Mine Grid coordinates) and is currently open to the north, south and at depth. - Individual lenses vary in size from a few hundred metres up to 1,000m along strike and/or down-dip, with a total strike length of mineralisation reaching approximately 4,000m. - The mineralised lenses range from a minimum of 0.2-0.3m, maximum of 12-36m with an average true thickness of 3-6m. - The current deepest production drive is approximately 1,700m below surface and the deepest economic drill intersection is approximately 2,000m below surface.
Estimation and modelling techniques	- Grade estimation used Ordinary Kriging (OK) as implemented in Maptek Vulcan v2021. Geostatistical analysis used Snowden Supervisor v8 and wireframes (grade domains) were constructed in Leapfrog Geo v2021.

Section 3 Estimating and Reporting of Mineral Resources

Criteria	Commentary
	• The main inputs and parameters for the grade domains and block construction are as follows: ○ Two grade domains (high and low) were created for each metal - Zn, Pb, Cu, Ag, Au, Fe and one domain for Cu using a combination of RBF interpolants and vein models. ○ Log probability plots and histogram distributions were used to determine the optimal grade ranges for each domain and lens. ○ Spheroidal interpolants are used with a standard sill of 1, range between 50 and 80 and a nugget of zero to ensure close snapping to data points. ○ Domain boundaries were constrained by digitised contacts from photogrammetry and mapping of mine development. ○ 1m composites were created from the drillhole database, then flagged by domain and lens variables and estimated individually: ○ Declustering was applied, typically at 20m cell size (average stope size) with 5m offsets. ○ Grade caps were applied to domains containing extreme values in the dataset. Log probability plots, histograms and cumulative frequency plots were used to determine the optimal caps for each composite. ○ Variograms (with caps applied) were individually modelled from the 1m composites for each domain and lens. The resulting search parameters were used in OK grade estimation. ○ The Local Varying Anisotropy (LVA) method was used to align and optimise the search direction of the estimate to the mineralisation geometry. The mineralisation trends are based on digitised elements from photogrammetry and mapping. ○ Block discretisation was applied at 2x4x2 (x, y, z) for a total of 16 points per block. ○ Octant search methods were not used. ○ Blocks require a minimum of three drillholes to be estimated and a maximum of four samples from any drillhole. ○ The minimum/maximum sample search number is based on Kriging Neighbourhood Analysis (KNA), and was generally set to 8/20, with some domains using a maximum of 16 samples. ○ The estimation was run over two passes. A first pass estimates most blocks using the major orientation search distances determined from modelled variograms. This varies depending on the domain and variable, with first pass searches in the major direction ranging from 31m to 100m. The search distances are doubled for the second pass to ensure remaining unestimated blocks are estimated. Maximum extrapolation used to generate the domains in Leapfrog was set to an ellipsoid ratio of 7, 7, 1 (max, int, min). • All recoverable metals of economic interest (Zn, Pb, Cu, Ag, Au and Fe) were estimated. No deleterious element or other non-grade variables of economic significance have been identified or estimated. • Parent block size was set to 2m x 7.5m x 5m (x, y, z) within the grade domains. The block size approximates one half of drillhole spacing in northing and RL and is consistent with the primary sampling interval in easting (1m). Sub-blocks set to 1m x 2.5m x 1m (x, y, z) were used to define the resolution necessary to effectively represent the grade domain boundaries. Super-blocks set to 50m x 52.5m x 50m (x, y, z) were

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
	used outside of the grade domains to reduce the model file size. No rotation is applied to block models. • No external dilution or recovery factors were considered during the estimation of the Mineral Resource. These are addressed in the Ore Reserve statement. • Each variable was independently estimated and informed, and no correlation between metals was assumed or used for estimation purposes. • Grade capping was applied to Au, Ag, and Cu domains in some lenses based on individual statistical analysis. Capping was not applied to Zn, Pb and Fe domains. High yield restrictions are used to limit the influence of extreme high grade samples within the low and high grade domains. High yield restrictions were mostly applied to the Lower Mine to limit extreme Ag, Au and Zn samples. • Block model validation process is summarised as follows: o Visual inspections for true fit with the high and low grade domains (to check for correct placement of blocks) on cross sections and plans. o Visual comparison of grade shells with previous block models. o Comparison of block model grades with composite grades and a global statistical comparison of the block model grades with the declustered composite statistics and raw length-weighted data. o Visual inspection of kriging quality statistics such as kriging variance, slope of regression, kriging efficiency, sum of positive weights, number of samples average distance to samples and pass. o Swath and Drift plots were generated and checked for all lenses to confirm overall consistency between data and estimates with a reasonable degree of smoothing. Change of Support analysis was undertaken on all elements on a lens by lens basis. Contact plots were used to confirm hard boundaries between domain variables and tonnes/grade curves used to compare with previous block models. o Reconciliation of block model grade estimates with actual Mill data from active mining areas showed block model performance within ±5% variance for each metal within the rolling twelve month period. o Reconciliation with Mill data was also used in the process of selecting appropriate caps and high yield restrictions to calibrate block model performance.
Moisture	• Tonnes have been calculated on a dry basis, consistent with laboratory grade determinations. • No moisture calculations or assumptions are made in the modelling or estimation process.
Cut-off parameters	• A Net Smelter Return (NSR) cut-off value defines the limit at which material is prospective for future economic extraction. Factors for MMG's long-term economic assumptions include metal prices, exchange rates, metallurgical recoveries, smelter terms and conditions and off-site costs, and was last updated in March 2022. • The Mineral Resource is reported above a A$155/t NSR block grade cut-off, a decrease of A$19/t NSR from the previous year following reclassification of the Resource cut-off grade (RCOG) to align with the stope cut-off grade (SCOG) used for Ore Reserve

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
	estimation. An example of average grades across the Lower Mine at the cut-off is as follows: 3.8% Zn, 1.0% Pb, 43.8 g/t Ag, 0.5 g/t Au, 0.1% Cu.
Mining factors or assumptions	• Mineral Resource block models are used as the basis for detailed mine design and scheduling and to calculate derived NPV for the life of asset (LoA). Full consideration is made of the reasonable prospect of eventual economic extraction in relation to current and future economic parameters. All assumptions including minimum mining width, dilution and proximity to surface are included in the mine design process. • Mined voids (stope and development drives) are depleted from the final Mineral Resource estimate as at 30 June 2022. • For Mineral Resources in the Lower Mine (active mining area), actual mined voids were removed including an additional 5m across strike. This is to ensure removal of near-void skins and pillars as these are considered not to have reasonable prospects for extraction. • For Mineral Resources in the Upper Mine, due to lack of confidence in completion in the void model, only resources away from outside edges of known stoping and development have been reported.
Metallurgical factors or assumptions	• Metallurgical processing of ore from the Rosebery deposit involves crushing and grinding followed by flotation and filtration to produce saleable concentrates of zinc, lead and copper. In addition, doré bars are produced at site from partial recovery of gold and silver by a Knelson gravity concentrator. • Metallurgical recovery parameters for all metals are included in the NSR calculation, which is used as the cut-off grade for the Mineral Resource estimate. The metallurgical recovery function is based on recorded recoveries from the Rosebery concentrator and monitored in monthly reconciliation reports.
Environmental factors or assumptions	• Environmental factors are considered in the Rosebery life of asset (LoA) work, which is updated annually and include provisions for mine closure. • Potentially acid forming (PAF) studies have been completed for sulphide-rich waste at Rosebery Mine in 2014. Determination of surface treatable and untreatable waste is currently determined by visual assessment guided by geological modelling and is not estimated or included in the 2022 Mineral Resource block models. • Only mineralised material intended for processing is brought to surface.

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
Bulk density	• Bulk density is measured with a weight in air and water method using a Dynamix G-Ex Auto SG station. The machine is calibrated after every drillhole using three different standards (stainless steel 8.00g/cm3, aluminium alloy 2.85g/cm3, titanium 4.51g/cm3). • In the Lower Mine only, dry bulk density (DBD) calculations are based on an OK estimation method using a combination of actual DBD measurements and predicted values assigned by a machine learning algorithm. • Since introducing this DBD estimation method in the Lower Mine, reconciliation has improved in tonnes and metal for all elements. • The machine learning algorithm (CatBoost Regressor) was trained with over 27,700 DBD measurements using the associated multi-element assay results as predictor features. The algorithm consistently gives an average K-folds test r2 results of 0.93, indicating a strong improvement over the bulk density formula used before 2018, which was based off metal/mineral percentages. • In the Upper Mine, Middle Mine and U lens areas where few actual DBD measurements are available, an empirical formula is used to determine the dry bulk density (DBD) based on Zn, Pb, Cu and Fe assays and assuming a fixed partition of the Fe species between chalcopyrite and pyrite. This formula is applied to the block model estimations after interpolation has been completed using a constant 2.65g/cm3 for the non-mineralised component of the rock. DBD = 2.65g/cm3 + 0.0560 Pb% + 0.0181 Zn% + 0.0005 Cu% + 0.0504 Fe% • DBD measurements are being collected for new drilling in the Middle Mine and U Lens areas. When enough data is available, a machine learning algorithm will be implemented to predict DBD values for historic drilling. • Significant voids or porosity are not characteristic of the Rosebery ore deposit and the DBD formula does not attempt to account for porosity.
Classification	• The Mineral Resource classification at Rosebery is based on geological continuity and understanding of the mineralisation, as well as drillhole spacing. A minimum of three drillholes are required to ensure that any interpolated block was informed by enough samples to establish adequate confidence in the modelled grade continuity. • Uncertainty guidelines determined from an internal drillhole spacing study (2017) are used for classification. Results from the study indicate the following general parameters: o Measured Mineral Resources (90% confidence and <15% uncertainty quarterly): 15m x 15m drillhole spacing. o Indicated Mineral Resources (90% confidence and <15% uncertainty annually: 30m x 30m drillhole spacing. o Inferred Mineral Resources are defined as twice the spacing of Indicated Mineral Resources, provided reasonable geological continuity exists. • As a final step, a set of Resource Category wireframes were constructed and used to ensure spatial continuity of the assigned classification. • The Mineral Resource classification reflects the Competent Persons view on the confidence and uncertainty of the Rosebery Mineral Resource.

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
Audits or reviews	• A Mineral Resources audit of the 2021 Lower Mine block model was completed in November 2021 by AMC Consultants Pty Ltd (AMC). AMC acknowledges that the 2021 Mineral Resource was compiled using usual industry practices and reported in accordance with the JORC Code (2012) and endorses the processes, systems and results employed by MMG in estimation of the Rosebery Mineral Resource. • No fatal flaws were identified in the audit and eight recommendations were made for improvements. Seven of those were implemented in the 2022 Mineral Resource estimate with the final recommendation undergoing further examination. • The 2022 Mineral Resources estimate was also peer reviewed internally with no material issues identified.
Discussion of relative accuracy/ confidence	• Geological confidence is high in the spatial location, continuity and estimated grades of the modelled domains that comprise the Rosebery Mineral Resource. The remaining Mineral Resource is expected to exhibit the same stacked, lensoidal mineralisation geometry that has been described to date in mined areas at the development drive and lens scale. • Minor local variations are observed at a sub-20m scale and it is recognised that the short scale variation cannot be accurately captured by drillhole data alone, even at close drill spacing. It is necessary to incorporate additional geological data to define local variations and this is achieved with the use of high resolution digital photogrammetry (mapping). • Short scale geometry variation is often related to the preferential strain around more competent units in the mine sequence. • Twelve month rolling reconciliation figures between the Mineral Resource model and the Mill treatment reports are within 5% for all metals, indicating that the Rosebery Mineral Resource estimation process is creditable. • Mining and development images (including traditional mapping and photogrammetry) show good spatial correlation between modelled domain boundaries and actual geological observations and contacts. • The combination of the Mineral Resource model, mapping, stope commentaries and face inspections provides reasonably accurate grade estimations for the mill feed to be tracked on a rolling weekly basis, end of month reports, as well as a quarterly and annual basis. • Remnant mineralisation near voids in the upper and lower levels has been removed from the reported Mineral Resources. • The accuracy and confidence of this Mineral Resources estimate is considered suitable for public reporting by the Competent Person.

6.2.3 Statement of Compliance with JORC Code Reporting Criteria and Consent to Release

This Mineral Resource statement has been compiled in accordance with the guidelines defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (“2012 JORC Code”).

6.2.3.1 Competent Person Statement

This Mineral Resources statement has been compiled in accordance with the guidelines defined in the 2012 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’ (“2012 JORC Code”).

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having more than five year's experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Member of The Australasian Institute of Mining and Metallurgy hold Chartered Professional accreditation in the field of Geology.
- I have reviewed the relevant Rosebery Mineral Resources section of this Report, to which this Consent Statement applies.

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Rosebery Mineral Resources section of this Report is based on, and fairly and accurately reflects the form and context in which it appears the information in my supporting documentation relating to Mineral Resources. I confirm that I have reviewed the relevant Rosebery Mineral Resources section of this Report to which this Consent Statement applies.

6.2.3.2 Competent Person Consent

Pursuant to the requirements Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

With respect to the sections of this report for which I am responsible – the Rosebery Mineral Resources - I consent to the release of the 2022 Mineral Resources and Ore Reserves Statement as at 30 June 2022 Executive Summary and Technical Appendix Report and this Consent Statement by the directors of MMG Limited:

This signature was scanned for the exclusive use in this document – the *MMG Mineral Resource and Ore Reserve Statement as at 30 June 2022* – with the author’s approval. Any other use is not authorised.

Date: 28th July 2022

Maree Angus MAusIMM (CP). (#108282)

This signature was scanned for the exclusive use in this document – the *MMG Mineral Resource and Ore Reserve Statement as at 30 June 2022* – with the author’s approval. Any other use is not authorised.

Rob Angus
Ninderry QLD

Signature of Witness:

Witness Name and Residence: (e.g. town/suburb)

6.3 Ore Reserves – Rosebery

6.3.1 Results

The 2022 Rosebery Ore Reserves are summarised in Table 20.

Table 20 2022 Rosebery Ore Reserve tonnage and grade (as at 30 June 2022)

Rosebery Ore Reserves

							Contained Metal				
Rosebery	Tonnes (Mt)	Zinc (% Zn)	Lead (% Pb)	Copper (% Cu)	Silver (g/t Ag)	Gold (g/t Au)	**Zinc ('000 t)**	**Lead ('000 t)**	**Copper ('000 t)**	**Silver (Moz)**	**Gold (Moz)**
Proved	4.8	6.7	2.7	0.19	120	1.2	320	130	9	18	0.18
Probable	0.77	6.1	2.1	0.20	79	1.3	47	16	1.5	2.0	0.03
Total	**5.5**	**6.6**	**2.6**	**0.19**	**110**	**1.2**	**370**	**140**	**11**	**20**	**0.21**
Stockpile											
Proved	0.01	7.3	3.8	0.21	140	1.5	0.9	0.49	0.03	0.06	0.001
Total	5.5	6.6	2.6	0.19	110	1.2	**370**	**140**	**11**	**20**	**0.21**

Cut-off grade is based on Net Smelter Return (NSR) after Royalties, expressed as a dollar value of A$155/t.

Contained metal does not imply recoverable metal.

The figures are rounded according to JORC Code guidelines and may show apparent addition errors.

The 2022 Reserves have decreased in comparison to 2021 by approximately 0.56Mt which was contributed to by multiple factors, including the following:

- Rosebery's 2022 Ore Reserves are located in the Lower Mine region only. Mining depletion since 30 June 2021 has decreased the 2022 Ore Reserves estimate by 0.94Mt. This change is offset by an increase in Ore Reserves in the K and P Lenses by 0.17Mt and 0.20Mt respectively. The increases in K and P lenses are due to additional Resource drilling and the inclusion of rib pillars with new designs.
- All other Lenses had minor changes to the Ore Reserve estimate from 2021.
- The 2022 Ore Reserve estimate is constrained by the limit of the existing planned TSF capacity. The operation is currently investigating options to provide additional storage capacity that will be required to convert any additional Mineral Resources. These studies are not yet at a point that would provide the confidence to support an Ore Reserve estimate.
- Mineral Resource estimates in the U Lens and Middle mine areas have not translated to Ore Reserve estimates due to the lower confidence in these areas. Further work will be completed in these areas during 2022.

6.3.2 Ore Reserves JORC 2012 Assessment and Reporting Criteria

The following information provided in Table 21 complies with the 2012 JORC Code requirements specified by "Table-1 Section 4" of the Code.

Table 21 JORC 2012 Code Table 1 Assessment and Reporting Criteria for Rosebery Ore Reserve 2022

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
Mineral Resources estimate for conversion to Ore Reserves	• The Mineral Resource estimate is based on the MMG March 2022 Mineral Resource block model, (ros_knpwxyz_dpm_2203_v1.dm). • The Mineral Resource estimate as reported is inclusive of the Ore Reserve estimate. • There is high geological confidence in the spatial location, continuity and estimated grades of the modelled domains within the Rosebery Mineral Resources. The sheet-like, lenticular nature of mineralisation exhibited historically is expected to be present in the remaining Mineral Resources at a global scale.
Site visits	• Andrew Robertson is the Competent Person for the Rosebery Ore Reserves, based in Adelaide, SA, and engaged as a contractor through Mining Plus Pty Ltd. Andrew has visited the site on numerous occasions in 2021-22. These visits have been to provide site support in the planning and reconciliation areas. They have also included inspections of underground and surface facilities as part of the support activities. These site visits have been augmented by Teams meetings and email communications with Expert Persons as required when not on site.
Study status	• The mine is an operating site with an on-going detailed Life of Mine planning process. Preliminary mining studies of the Upper Mine, Middle Mine and U Lens are in progress. These areas are not included in the Ore Reserve Estimate due to the lower confidence of the Resources in these areas.
Cut-off parameters	• The 2022 Mineral Resource and Ore Reserve estimates rely on cut-off grades/values which are based on corporate guidance on metal prices and exchange rates. The site capital and operating costs, production profile, royalties and selling costs are based on MMG's 2022 Budget. Processing recoveries are based on historical performance. • The Breakeven Cut-off Grade (BCOG) has been calculated using MMG's 2022 Budget costs. In previous years, the calculation only used the budget year cost and tonnage. For 2022, the process has been reviewed and now includes the full three-year data (2022-2024) from the mine plan to smooth any cost volatility and produce a longer-term cost basis. • The BCOG was used to evaluate the economic profitability (Level by Level) of mining during the Life of Asset planning process. The Stope Cut-off Grade (SCOG) which does not include development costs was used to define the stope shapes including estimated planned dilution as the operation is mine constrained. Resultant stope shapes that were below the BCOG value but above SCOG were evaluated for mining on an individual basis. Accordingly, material that is below the BCOG is included in the Ore Reserve estimate, as it is considered profitable as incremental feed and/or necessary to be mined for other reasons. • The Development Cut Off Grade (DCOG) is used to separate ore and waste in planned development. Development material that is above DCOG, classified as Measured or Indicated Mineral Resource and must be moved to extract stoping ore is included in the Ore Reserve Estimate.

<table>
<tr><th colspan="2">Section 4 Estimation and Reporting of Ore Reserves</th></tr>
<tr><th>Criteria</th><th>Commentary</th></tr>
<tr><td></td><td>

The operating costs, both fixed and variable, have been attributed on a per mined tonne basis using the planned mine production rate of circa 1.0Mtpa
The NSR values are based on forecast metal prices, exchange rates, current treatment charges and refinery charges (TCs & RCs), government royalties and metallurgical recoveries.
The cut off values include costs estimated to the mine gate. All off site operating costs including shipping, TCs and RCs and royalties are included in the NSR calculation.
Exploration drilling was classed as an operating expense and was excluded from 2022 COV calculations, in accordance with company policy as it was not related to existing Resources. The guidelines distinguish between exploration drilling, Resource delineation drilling, and Resource definition drilling.
Resource delineation drilling is classified as CAPEX and was not classified as Sustaining Capital for the development of cut off grades as it is considered Growth capital, and therefore did not influence the BCOG value. Resource Definition drilling is an operational expense and included in the COV calculation.

<table>
<tr><th>Category of Cut-off</th><th>2022-2024
Au$/t processed</th><th>Bud 2021
Au$/t processed</th><th>Diff AU$/t</th></tr>
<tr><td>BCOG</td><td>184</td><td>174</td><td>10</td></tr>
<tr><td>SCOG</td><td>155</td><td>156</td><td>-2</td></tr>
<tr><td>DCOG</td><td>78</td><td>69</td><td>8</td></tr>
</table>

As the Ore Reserve has been constrained by the remaining planned TSF capacity, lower grade stopes and development material have been removed from the Ore Reserve estimate. This material is still available to be mined if any future additional tailings storage solution is approved.

</td></tr>
<tr><td>Mining factors or assumptions</td><td>

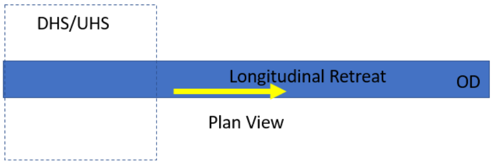
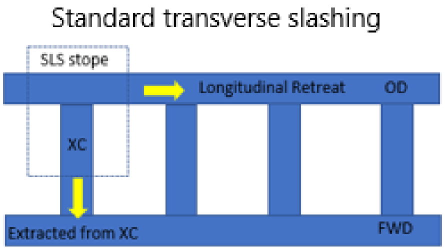
Mining production is carried out by long-hole open stoping with decline access. Stoping is conducted through both longitudinal retreat and transverse methods. These methods have been used at the Rosebery Mine since the 1970s and are well understood at this operation.
Mining lenses are divided into panels and are mined using a bottom-up sequence with a number of levels being retreated simultaneously, either towards or away from level access drives. The nature of this mining sequence causes fluctuations in the grade profile in the short-term.
Backfilling of stope voids is carried out using two methods; cemented rock fill (CRF), and rock fill (RF). Up-hole (Crown) retreat stopes are left as open voids due to lack of access for fill placement. These open voids do not result in regional instability. The current mine closure plan identifies approximately 500kt of waste rock that has been stockpiled on the surface that is available for use as backfill when development material becomes insufficient to meet demands.
Long-term stope shapes are initially identified using the Stope Optimizer (SO) process within the Deswik Software package, using NSR as the optimisation field and SCOG as the cut-off grade (NSR $155). Each scheduled stope is a combination of three or four of the 5m SO blocks giving a stope strike length of 15m or 20m. Each stope shape is then manually modified for practical extraction.

</td></tr>
</table>

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
	- Mining Tonnage Recovery factors of 100-118% and Grade Recovery factors of 83-95% are applied to mined ore tonnes, depending on the mining zone, based on historic reconciliations. These factors average 115% and 90% respectively for the combined mining areas based on the 2021 Ore Reserve Estimate weightings. - Rib pillars that have been left in Lower Mine lenses have only been mined in a limited manner. As a result, there is no robust historical performance to benchmark the mining factors against. An assessment of the mining performance of neighbouring stopes and the small number of pillar extractions determined that it can be assumed that the pillars will incur the same dilution as the primary stopes in each lens but only 50% of the design material will be recovered at the diluted grade. This is a conservative assumption that will be reviewed as more actual performance information becomes available. - Access to the orebody is through a decline 5.5m H x 5.5m W at a 1:7 gradient. The approximate horizontal standoff distance between the stoping footwall and major infrastructure; i.e. - stockpiles, vent rises, escape-ways and declines is 65-70m. - For Ore Reserve estimating, only Measured and Indicated Resource material is included. Inferred Resource material is included as unavoidable inclusion to a maximum of 10% of any stope before the stope is excluded from the Ore Reserve Estimate. - Production of ore is contained entirely within Measured and Indicated Mineral Resources. Resource definition drilling programs are scheduled to convert Indicated Mineral Resources to Measured Mineral Resources before development or stoping activities commence in those areas. - All mine development is under survey control. Geological development control is currently not implemented at Rosebery apart from estimating the ore grades in development headings and distinguishing between ore and waste material. - The primary ventilation system supplies approximately 660 m^3/s (measured at the three primary ventilation fans) of air to the underground mine, which is sufficient to allow extraction of the current mine production rate from multiple ore lenses as described in the mine plan. Refrigeration of the mine air is considered unlikely to be required to extract the current Ore Reserves. As a result, no refrigeration system has been allowed for in the Reserve Mine Plan. - The mine has an established dewatering circuit and other services, including electrical ring main, leaky feeder radio system, compressed air, production water and potable water. This circuit is capable of being extended as the mine expands. - Emergency egress is managed by a system of ladderways, drives and fresh air stations, which provide a means of secondary egress from all major production fronts. This network is extended as the mine expands. From 17 Level, the No.2 shaft acts as the second means of egress to duplicate the main decline. Where required, mobile self-contained rescue chambers are installed.
Geotechnical	- Rosebery is one of the deepest and oldest mines in Australia with challenging ground conditions that result in the closure (squeezing) of development drives and mining induced seismicity around production fronts in the lower levels. - Mining induced seismicity at Rosebery is usually related to the proximity of production to geological structures or contrasting lithological contacts. A geological

Section 4 Estimation and Reporting of Ore Reserves

Criteria	Commentary
	structural model that includes the known major intrusions, contact zones and lithological features has been developed and is routinely updated to guide mine planning and operations. • Seismicity can also be attributed to production near highly stressed abutment and close-out pillars. Permanent infrastructure (declines, stores, substations, etc.), that sit within these abutments/pillars, are managed with appropriate ground support for the possible conditions experienced. • Seismic monitoring, seismic re-entry exclusion periods (following production firings) and seismic TARPs (mine wide and high-risk area specific) are used to control personnel access into potentially high seismic hazard locations. • High displacement ground support (dynamic support) is selected in locations where increased seismic risk has been determined by the geotechnical department during the development design process. • Rock fabric anisotropy results in poorer rock mass quality for drives that strike North-South compared to drives that strike East-West. As a result, North-South striking drives often require higher capacity support requirements and increased rehabilitation costs. • Just-in-time development, preferential drive orientations and condition specific ground support capacity designs are combined with multiple stages of rehabilitation to establish and maintain serviceability of development. • Rosebery mine uses three main extraction methods based on depth, stress and the presence of mined voids. The table below can be used to select the method of mining best suited to the expected conditions.

• Method	• Diagram
Benching - longitudinal retreat along a single OD (Ore Drive). Ideally used in low Stress, low yielding rock masses, where there is a reduced seismic risk. In some cases, where higher than expected deformation and seismic hazard are encountered, additional ground support is applied; in this case, a change of extraction sequence may also be considered	
Transverse Slashing – longitudinal retreat, extracted from the XC (Cross-cut) with minimal equipment or personnel access into the OD required. This extraction method may be selected based on drill and blast requirements (wider ore zone, requiring greater drilling ability) or to reduce seismic hazard exposure, where the seismic hazard is present in the OD. With this method, personnel and equipment are not exposed to the high seismic risk, if	

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<tr><th colspan="2">Section 4 Estimation and Reporting of Ore Reserves</th></tr>
<tr><th>Criteria</th><th>Commentary</th></tr>
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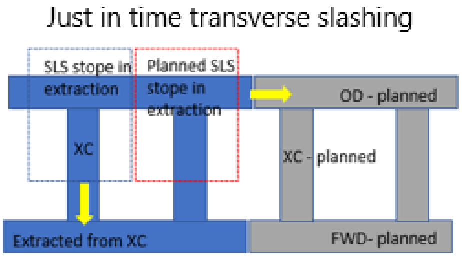
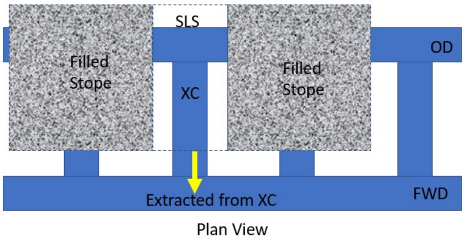
<tr><td>present in the OD, as most production activities occur in the XC and FWD (Foot Wall Drive). In the case where this method has been selected and a seismic risk has later been identified in the FWD, higher capacity support is required as well as just in time development. This case, where the higher seismic hazard is present in the FWD, has occurred in several active lenses and personnel exposure to this seismic hazard is being controlled with increased ground support requirements, just in time mining and restricted personnel access ahead of the stoping front, in already mined development.
Where a near field seismic hazard has been identified the need to reduce personnel exposure to the hazardous conditions is paramount (highest hazard conditions are determined by non-linear elastic modelling and underground observations). Various tiers of just in time mining and ground support installation requirements are available, based on the level of hazard that exists. This extraction method is typically selected in high stress, high yielding rock masses, where an increased seismic risk is present.</td><td>
</td></tr>
<tr><td>**Pillar recovery** – Extraction of intermediate pillars (between previously mined stopes), this method is a transverse retreat from the crosscut, slashed from the FWD. Assessment of fill material (above, below and adjacent) and surrounding open voids is required prior to extraction. This is a common method used in remnant mining; stress state and seismic risk do not dictate the mining method (the previous extraction of surrounding stope will determine mining method required).</td><td>
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- Linear elastic and non-linear elastic numerical modelling are conducted by MMG personnel and consultants to assess the overall mining sequence; this is used to minimise/control potential seismicity and drive closure. Where areas of concern are identified due to a damaging seismic event or unfavourable conditions, a calibrated and detailed non-linear model is created for that location to test and verify the extraction method and sequence.
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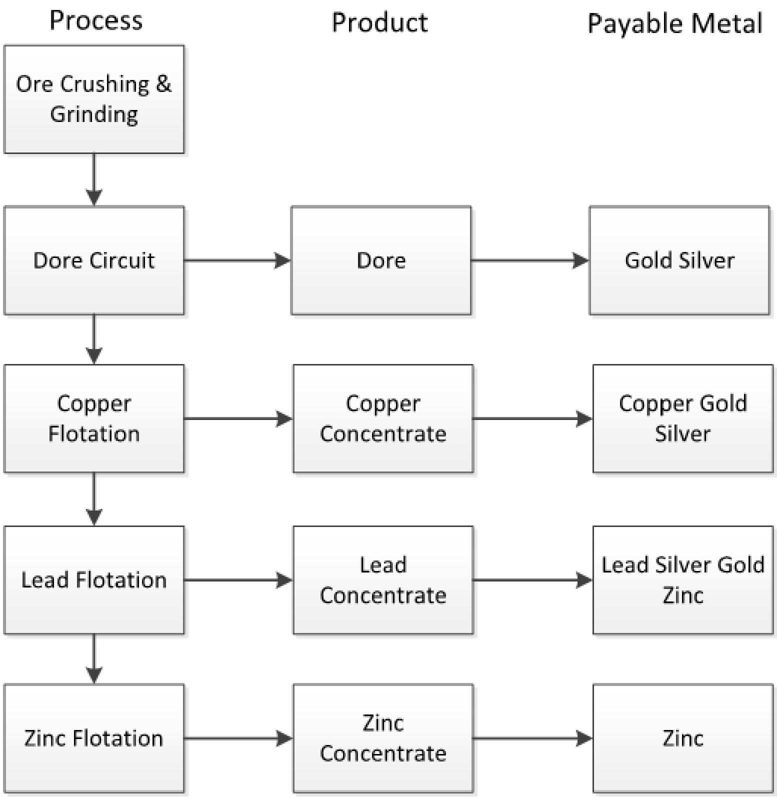
Section 4 Estimation and Reporting of Ore Reserves

Criteria	Commentary
Metallurgical factors or assumptions	- Rosebery is a poly-metallic underground mine with all ore processed through an on-site mill and concentrator. The Rosebery Concentrator operates a traditional and proven set of unit operations that are designed to target the mineralisation of the Rosebery ore. The process has been operating for many years, and the ore body is largely consistent over space and time. - The processing plant has been in continuous operation for over 75 years in various configurations. Traditional froth flotation has been used to float sulphur bearing minerals successfully during that time. The inclusion of a gravity gold recovery circuit allows for additional value to be recovered to the gold doré product. This is proven technology in the gold industry and has been operating successfully in this configuration at Rosebery for some time. The saleable products from this plant in its current configuration are doré, copper concentrate, zinc concentrate, and lead concentrate as shown in the flow chart below.  - The Metallurgical Model is used to predict the recovery of each payable metal to each product through a series of regression coefficients based on normal operation of the plant. The data from a selected time period is carefully cleaned and analysed. The relationships between feed grade, throughput rate and feed grade metal ratios are established, and the Metallurgical Model is generated. The output of this process is documented and circulated for review and approval. All forecasting and reporting spreadsheets reference these parameters to generate predicted processing products. - Test work has been performed at varying frequencies across the life of the Rosebery mine. The ore body that is currently being mined is defined by several discrete ore lenses. The blending of ore from these different lenses provides a robust response

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
	to processing through the Rosebery Concentrator. The ore body contains ore of varying metal grades and grade ratios, and these are all accounted for within the metallurgical model. New areas of the mine are tested metallurgically with the intent of providing assurance to the budgets that are produced from the metallurgical modelling of the feed ore. • The payability terms for each product produced by the Rosebery Concentrator are defined in the NSR model. This model accounts for the penalties for deleterious metals as well as the payability for each metal in each product. This allows for optimisation of the plant or planning for altered revenue. • The Rosebery Concentrator and orebodies are considered as well understood and established entities. Bulk Sample test work is undertaken as the process changes, capital alterations are considered for justification or new lenses with different mineralogy are assessed. • Arsenic is a penalty element in copper concentrates. This element is usually controlled by blending of processing feed but can incur penalties on occasion.
Environmental	• The 2/5 Dam Tailings Storage Facility (TSF) was commissioned in April 2018 for subaqueous tailings deposition. Commissioning included a new pump station, tailings pipeline and seepage collection ponds. • Currently, an interim/temporal subaerial tailings deposition at the Stage 1 raise has been approved by the EPA, to allow for additional tailings storage capacity while the construction of the Stage 2 Raise takes place. This includes dust suppression strategies to mitigate any possible dust events to the surrounding community. Rosebery has proactively been conducting dust monitoring at the 2/5 Dam TSF since the start of construction of Stage 1. • The waste water management at Rosebery involves collecting all potentially contaminated water, including storm water, mine water and mill tailings at the Effluent Treatment Plant (ETP), where lime is added prior to pumping the whole volume of treated water to the Bobadil TSF via the Flume (an open concrete channel flowing under gravity to the TSF). After the final polishing stage, water is subsequently discharged to Lake Pieman. • The ETP hydraulic capacity is approximately 600 l/sec and the plant can receive 335 l/sec of site mine water with remaining limited spare capacity of approximately 265 l/sec to treat the site surface rain or storm water. When the inflow approaches ETP capacity, additional storage is available in an interim storage dam for later treatment. • The historic Hercules Mine is the most significant "legacy site" for Rosebery management. Smaller historic legacy features are also found on the lease including ore passes, open pits, adits, shafts, costeans etc. In 2021, MMG completed a legacy site audit on the lease and these now number 177 features. • Waste rock is characterised as either NAF, PAF or High PAF. To-date the majority of waste rock produced has been retained underground and used for stope filling, either as RF or CRF. Previously, surplus waste rock was trucked to the surface and unloaded at the 3 or 4 Level waste rock dump and was treated by adding a layer of lime on top and below every layer of waste rock. Recent Life of Mine (LoM) planning suggests there will be no further requirement for waste rock to be trucked to surface

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
	and that material from some of the existing surface waste dumps will be used underground for additional fill requirements. • Detailed studies are currently being undertaken to complete designs for a Stage 11 embankment raise at the Bobadil TSF. This raise will ultimately require regulatory approvals and is required to provide adequate storage for the tailings produced by the reported Ore Reserves. • Work is currently underway to confirm an additional TSF to accommodate any future extensions of the mining operation.
Infrastructure	• MMG Limited holds title to the Rosebery Mine Lease (ML 28M/1993 – 4,906ha) which covers an area that includes the Rosebery, Hercules and South Hercules base and precious metal mines. This Mine Lease expires in 2024 and is in the process of renewal. A historical NSR royalty agreement covers a small section to the north of the lease which impacts the northern end of the X North and Y lenses and Z Lens. This royalty is included in the financial assessment. • Electric power to the site feeds in through No. 1 Substation located adjacent to the Mill Car Park. There is a contract for the supply to the site with the Electrical Supply Authority for the region. This system has redundancy to ensure continuity of supply and has the potential for expansion if required. • Potable water for the site is currently sourced from Lake Pieman and Stitt River, with allotments of 5,500 ML and 1,647 ML respectively. • In total, the Rosebery Mine operation employs 367 permanent staff and an additional 150 contractors, covering all aspects of the operation. • Primary communication from the Rosebery Mine site is by phone along with surface mobile phone coverage that is provided by Telstra and Optus. Phones are available throughout the surface buildings. There is also an extension of the phone system underground. Along with the phone system, there is also email and internet services associated with the lines. This is available throughout the office area by a wireless system. • The main system for communication underground is through radio via a leaky feeder and fibre system. The radio system operates on multiple channels with general, extended discussion, and emergency channels. • With all mining activity taking place underground at Rosebery, access to the operating areas is by the main decline, this route is used to access the upper-mid area of K Lens. From this point, access splits between two declines to the K/N/P Lens area and the W/X/Y Lenses. Other declines are used to direct primary airflow and for cross mine access. The ore is hauled out of the mine in a fleet of 55-60 tonne haul trucks. • The Rosebery primary ventilation circuit consists of airflow circuits in series which accumulate airborne contaminants and heat as pumped air progresses deeper into the mine. At the 46K Level fresh air is introduced into the circuit via the North Downcast (NDC) shaft, diluting the contaminated air, which finally reports to the return airways and exhausts to the surface. The current primary ventilation system supplies approximately 660 m^3/s of air throughout the mine.

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<tr><th colspan="2">Section 4 Estimation and Reporting of Ore Reserves</th></tr>
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- There is a crib room and workshop facility at the 46K Level which is close to the current and ongoing production areas. This area is used for regular maintenance of machines and rest breaks. An additional crib room is located at the 17L plat for personnel working in the upper levels.
- Concentrate is transported from site by TasRail, which is the only rail service that connects the West Coast area to the port in Burnie. All other logistical support is via the Murchison Highway.
- Until April 2018, tailings from the ore treatment were only placed into the Bobadil TSF located to the north of Rosebery. Tailings have subsequently been discharged into 2/5 Dam TSF, and sporadically into Bobadil TSF. The new Stage 10 raise construction at Bobadil TSF was completed in March 2022, providing Rosebery Mine with an alternative facility for the storage of tailings from May 2022.
- The 2/5 Dam TSF, located to the south-west of the Rosebery township, was commissioned in April 2018 for subaqueous tailings deposition. The 2/5 Dam TSF Stage 1 has temporarily been converted to subaerial tailing deposition to allow for additional storage of tailings, while the construction of the Stage 2 raise takes place. This lift construction is planned to be completed in January 2023.
- Stage 2 at 2/5 Dam TSF is in the process of obtaining regulatory approvals to convert the facility into a subaerial deposition facility. If this is approved there is capacity for constructing a Stage 3 raise. A prefeasibility study for Stage 3 at the 2/5 Dam TSF raise was completed in early 2020.
- The table below outlines the expected tailing storage capacities available from March 2022 at Bobadil and 2/5 Dam TSFs

<table>
<tr><th>Location</th><th>Tailings Capacity (Mt)</th><th>Comment</th></tr>
<tr><td>Bobadil TSF – Stage 10</td><td>0.6</td><td>Operational</td></tr>
<tr><td>Bobadil TSF – Stage 11</td><td>1.1</td><td>Feasibility study completed</td></tr>
<tr><td>2/5 Dam TSF – Stage 1</td><td>0.5</td><td>Operational</td></tr>
<tr><td>2/5 Dam TSF – Stage 2</td><td>1,3</td><td>Rise under construction</td></tr>
<tr><td>2/5 Dam TSF – Stage 3</td><td>1.4</td><td>Pre-Feasibility study completed in 2020</td></tr>
</table>

- Bobadil Stage 11 Feasibility Study (FS) was completed in 2019 for a capacity of 0.8Mt. The site investigation and studies have started to complete the detail design, it is currently estimated at a total capacity of 1.1Mt for this stage.
- The 2/5 Dam TSF Stage 3 Raise Pre-Feasibility Study (PFS) was completed in 2020, for 1.4Mt after subaerial deposition (or 2Mt from subaqueous deposition).
- The current LOM is a collection of the approved, completed, PFS and FS stages with a total capacity of 5.0Mt of tailings as at March 2022. Using a more conservative mill feed:tailings ratio of 86.2%, this capacity is sufficient to contain the tailings produced from treatment of the 2022 Ore Reserve Estimate.

</td></tr>
<tr><td>Costs</td><td>

- Costs used in determining the cut-off values for the Ore Reserves estimation were based on the 2022 Budget. Costs were inclusive of Operating Expenses and Sustaining Capital.

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</table>

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
	- Costs are in Australian dollars and are converted to US dollars at the applicable exchange rate. - MMG Group Business Evaluation team supplies the long term commodity price and exchange rate assumptions. These price assumptions are then applied to the period in which the ore is scheduled to be produced to determine the extracted NSR. - All applicable exchange rates, transportation charges, smelting & refining costs, penalties for failure to meet specification and royalties are included as part of the NSR calculations evaluated against the annually released geology block model to estimate projected value. - Penalties deduction from revenue may be applied where concentrates contain a higher percentage of unwanted minerals. - A cash flow model was produced based on the detailed mine schedule and the aforementioned costs to determine the NPV. - Capital costs are included form the 2022 Budget. These costs are based on a supporting Feasibility Study as required by MMG Standards to justify inclusion in the plan. - The Ore Reserves estimation has been based on these costs.
Revenue factors	- Commodity prices and the exchange rate assumptions are as reported in the cut-off parameters section. These are provided by MMG Group Business Evaluation, based on external company broker consensus and internal MMG analysis and are approved by the MMG Board. - Treatment and refining charges, royalties and transportation costs for different commodities were supplied by MMG Group Commercial and have been included in the NSR calculation. These costs are based on existing agreements or market estimates. - The formulas, regression values and assumptions used in the NSR calculation are based on the historical data provided by the Rosebery Metallurgy Department. - Economic evaluations are carried out to verify that mining areas are profitable. The cost assumptions were applied to the mining physicals, and the revenue was calculated by multiplying the recovered ore tonnes by the appropriate NSR value. All economic stopes containing Measured and Indicated Resources were included in the Ore Reserves.
Market assessment	- MMG's market assessment is developed by the internal MMG Marketing and Business Evaluation Departments and is supported by external analyst information which informs the MMG Board. - Global zinc mine production increased over 6% during 2021 to finish the year well above the COVID-19 impacted lows seen during 2020. . Government stimulus in the form of infrastructure spending combined with increased manufacturing activity was the driver of this zinc consumption growth. - The zinc concentrate market was in surplus during 2021 with smelters able to adequately cover their concentrate requirements. A surplus concentrate market is expected to continue in the short to medium term as higher metal prices encourage new mine production and a number of existing mines have announced production

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
	expansions. As Rosebery zinc concentrate is delivered to the Nyrstar concentrator in Risdon, Tasmania, the European concentrate surplus should not impact this region. • In the longer term, mine production is expected to decline due to the forecast closure of mines as ore reserves are depleted. While there are a few new mines at the advanced stage to replace this depletion, new zinc projects tend to be more economically and operationally challenging than existing or recently closed operations due to a range of factors including grade, size and location. Financing for new projects can also become difficult if there are periods of price uncertainty. • Strong metal prices saw an increase in smelter utilisation and zinc metal output for much of 2021. A sharp rise in European electricity prices put smelter profitability under pressure late in 2021 with two European smelters put on care and maintenance. This has created a tight metal market in Europe and LME zinc stocks have reduced. One of these smelters has since re-started in early 2022 as metal prices increased further. Metal supply is still forecast to remain tight providing fundamental support to the zinc price. • The zinc price has increased in 2022, primarily due to the tightness in metal markets and the conviction amongst investors that government stimulus will continue to enable a strong rebound in economic growth and fuel demand for commodities. Investor confidence in commodities is expected to be sustained in the medium term. • Rosebery has life of mine agreements in place with Nyrstar covering 100% of zinc and lead concentrate production, which is sold to them on international terms. Currently, Rosebery's precious metals concentrate is sold to China MinMetals for use by Chinese smelters under a two-year sales contract (2022-23). Doré is sold to the Perth Mint for refining into gold and silver metal.
Economic	• Rosebery is an established operating mine. Costs used in the NPV calculation are based on historical data and existing supply contracts. Revenues are calculated based on historical and contracted realisation costs and realistic long-term metal prices. • The mine is profitable, and life-of-mine economic modelling of the Ore Reserve schedule shows that the Ore Reserves are economic. The Life of Mine (LOM) financial model demonstrates the mine has a positive NPV at assumed commodity prices. MMG uses a discount rate that is appropriate to the size and nature of the organisation, deposit life and macroeconomic conditions.
Social	• The West Coast area of Tasmania has a long history of mining. There are a large number of people employed by the mine from the town of Rosebery and the local government area. • Community issues and feedback associated with the Rosebery mine are received through the MMG Community Liaison Office. All issues are reported on a Communication and Complaints form and forwarded to the Administration and Community Assistant for action, per the Site Complaints Procedure. The Superintendent - Environment and Community, makes direct contact with the complainant to discuss the issue and once details are understood, communicates with the department concerned to resolve the matter.

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Criteria	**Commentary**
	• During the 2021/2022 reporting period eighteen community complaints were received across a range of issues. In the 2020/2021 reporting period, one community complaint was received that was related to noise from the effluent pump failure. • MMG is currently investigating a new TSF to support further mining of the ore reserves beyond 2028. MMG has gained the necessary legal approvals to conduct intrusive investigations at two potential TSF sites. MMG has conducted extensive community & stakeholder engagement during these activities. One non-governmental environmental organisation is currently objecting to investigative works at one of the sites. • The MMG Rosebery Mine – Underground Agreement 2020 labour agreement is current until January 2024. • During 2021, Rosebery undertook a range of social performance activities including conducting Mine Closure and Community Visioning workshops with the community and opening a new community information centre to improve the access with the local community.
Classification	• Ore Reserve classifications comply with the JORC Mineral Resource and Ore Reserve classifications where Proved Ore Reserves are only derived from Measured Mineral Resources, and Probable Ore Reserves are only derived from Indicated Mineral Resources or Measured Mineral Resources where increased uncertainty on modifying factors applies. • Portions of Inferred Mineral Resources have been included in the Ore Reserves which unavoidably reside within the stope shapes but are minor inclusions (less than 10% by mass). These are classified as Probable Reserves. • Portions of Indicated Mineral Resources have been included in the Proved Ore Reserves if they unavoidably reside within the same stope shapes, but only if they are minor inclusions (less than 50% by mass). The reverse of this situation also applies, with some Measured Mineral Resources being unavoidably classified as Probable Reserves. • The Competent Person deems this approach is aligned with the JORC Code and is appropriate for the classification of the Rosebery Ore Reserves. • Where stopes contain more than one Mineral Resource category, then the individual classification components have been treated and reported as outlined above.
Audit or Reviews	• The Processing and Mineral Resources expert persons at Rosebery reviewed the NSR script to ensure correct operation for each model. Detail has been updated to reflect current market projections and processing assumptions. The 2022 NSR script was processed in the Vulcan software. The script execution was then cross checked against an Excel version to ensure that it was correctly populating all blocks. • Mineral Resources block models were validated during the design and evaluation process. • There has been an external audit carried out on the Ore Reserves process during 2021 for the 2021 Ore Reserve estimation. (AMC Consultants 23 December 2021). AMC considered *"that the methodology used to generate the 2021 Ore Reserves follows good industry practice"*.

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
	• In February 2021, Mining Plus completed a review of the Rosebery Mine reconciliation process. While areas for improvement were identified, the saleable products reconciled within acceptable ranges for the mine schedule and Resource Model.
Discussion of relative accuracy/confidence	• The key risks that could materially change or affect the Ore Reserves estimate for Rosebery include: Seismicity: The Rosebery mine has had several significant seismic events in the past. Potential exists for future seismic events to occur that may impact on the overall recovery of the Ore Reserves. Induced stress: the depth of mining at Rosebery leads to drive closure and difficult mining conditions. This may impact the ability of Rosebery to extract the ore reserves contained within sill pillars. Tailings storage: There is currently a clear planning and approvals process to ensure that there is sufficient tailings storage capacity for the current Ore Reserve material. This storage capacity is at its limit to contain the 2022 Ore Reserves using a more conservative mill feed:tails ratio than previously. If there are significant delays in this schedule, this may impact the deliverability of the remainder of the Ore Reserve in the last year of production. • Resource Delineation & Reserve Definition drilling is applied to define tonnage and grade before mining locally. Ore Reserves are based on all available relevant information. The Proved Ore Reserve estimate is based on local scale exploration drilling and mining exposure and is suitable as a local estimate. The Probable Ore Reserve estimate is based on local and global scale exploration drilling and mining exposure. • Ore Reserve estimate accuracy and confidence that may have a material change in modifying factors is as discussed throughout this table. • The Ore Reserve estimate is based on the results of the operating mine. There is confidence in the estimate compared with actual production data and historical production reconciliations.

6.3.3 Expert Input Table

A number of persons have contributed key inputs to the Ore Reserves determination. These are listed below in Table 22.

In compiling the Ore Reserves, the Competent Person has reviewed the supplied information for reasonableness but has relied on this advice and information to be correct.

Table 22 Contributing Experts – Rosebery Ore Reserves

EXPERT PERSON / COMPANY	AREA OF EXPERTISE
Lon Garrick, Senior Resources Geologist, MMG Ltd	Mineral Resources
Janrich Buys, Resource Geologist MMG Ltd	Mineral Resources
Iso Harry, Senior Engineer Long Term Planning, MMG Ltd	Mining Parameters, Cut-off estimation, mine design
David Willey, Planning Engineer Mid- Term MMG Ltd	Mine Scheduling
Su Wong, Superintendent Geotechnical Engineering, MMG Ltd	Geotechnical
Ben Reimers, Superintendent Metallurgy, MMG Ltd	Metallurgy
Pamela Soto, Principal Tailings & Water Engineer, MMG Ltd	Tailings Facilities
Claire Beresford, Senior Business Analyst, MMG Ltd	Financial assessment
Simon McKinnon, Senior Business Analyst, MMG Ltd	Operating costs
Jarod Esam, Group Manager Business Evaluation, MMG Ltd	Evaluation parameters and market assessment
Simon Ashenbrenner, Manager – Zinc/Lead Marketing, MMG Ltd	Marketing
Adam Pandelis, Senior SHEC Advisor, MMG Ltd	Environmental
Roscoe Sewell, Senior HR Business Partner, MMG Ltd	Human Resources
Ben Osgerby, Manager – Environment, Community and Closure Planning, MMG Ltd	Closure and community

6.3.4 Statement of Compliance with JORC Code Reporting Criteria and Consent to Release

This Ore Reserve statement has been compiled in accordance with the guidelines defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("2012 JORC Code").

6.3.4.1 Competent Person Statement

I, Andrew Robertson, confirm that I am the Competent Person for the Rosebery Ore Reserve section of this Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having five years' experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Fellow of The Australasian Institute of Mining and Metallurgy
- I have reviewed the relevant Rosebery Ore Reserve section of this Report, to which this Consent Statement applies.

I am a contractor to MMG as an employee of Mining Plus Pty Ltd. at the time of the estimation.

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Rosebery Ore Reserve section of this Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to the Rosebery Ore Reserve.

6.3.4.2 Competent Person Consent

<u>Pursuant to the requirements Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)</u>

With respect to the sections of this report for which I am responsible – the Rosebery Ore Reserves - I consent to the release of the 2022 Ore Reserves Statement as at 30 June 2022 Executive Summary and Technical Appendix Report and this Consent Statement by the directors of MMG Limited:

This signature was scanned for the exclusive use in this document – the *MMG Mineral Resource and Ore Reserve Statement as at 30 June 2022* – with the author's approval. Any other use is not authorised.

12 August 2022

Andrew Robertson FAusIMM (#100858)

Date:

This signature was scanned for the exclusive use in this document – the *MMG Mineral Resource and Ore Reserve Statement as at 30 June 2022* – with the author's approval. Any other use is not authorised.

Elizabeth Robertson,
Bridgewater SA

Signature of Witness:

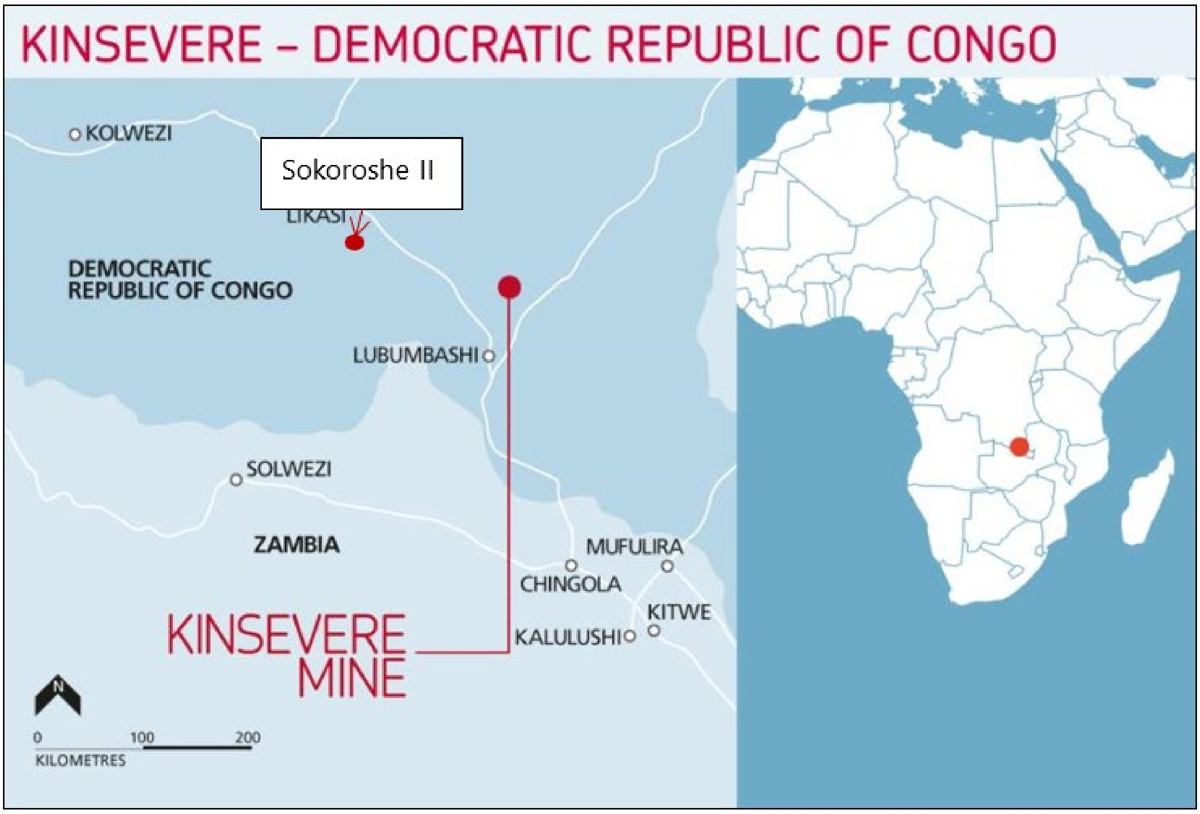
Witness Name and Residence: (e.g. town/suburb)

7 SOKOROSHE 2

7.1 Introduction and Setting

The Sokoroshe 2 Project is located on the license PE538 in Democratic Republic of Congo, DRC. The PE538 tenement belongs to the DRC state owned mining company GÉCAMINES and is part of a package of 8 tenements granted to MMG under an Amodiation agreement which became effective on 13 May 2014. The project is situated in the southeast part of the Congolese Copperbelt, located approximately 43Km northwest of Lubumbashi and is approximately 25Km west of the Kinsevere mine (See Figure 7-1).

Figure 7-1 Sokoroshe 2 project location



Since 1 July 2022 MMG personnel conducting works at the Sokoroshe 2 lease were removed by armed forces who claimed Gécamines had signed two research contracts for the area with third parties. MMG continues to be denied access to the Sokoroshe 2 lease. MMG has also recently become aware that the third party has commenced pre-stripping works at the site, which contravenes DRC law. MMG has filed arbitral proceedings against Gécamines before the International Chamber of Commerce.

7.2 Mineral Resources – Sokoroshe 2

7.2.1 Results

The 2022 Sokoroshe 2 Mineral Resources are summarised in Table 23. Ore Reserves are not reported for Sokoroshe 2.

Table 23 2022 Sokoroshe 2 Mineral Resources tonnage and grade (as at 30 June 2022)

Sokoroshe 2					**Contained Metal**		
Oxide Copper[1]	**Tonnes (Mt)**	**Copper (% Cu)**	**Copper (AS[1] % Cu)**	**Cobalt (% Co)**	**Copper ('000)**	**Copper AS ('000)**	**Cobalt ('000)**
Measured	-	-	-	-	-	-	-
Indicated	2.8	2.1	1.8	0.39	59.0	50.3	10.7
Inferred	0.2	1.1	0.8	0.10	1.8	1.3	0.2
Total	**2.9**	**2.1**	**1.8**	**0.37**	**61**	**52**	**11**
Transition Mixed Ore (TMO) Copper[2]							
Measured	-	-	-	-	-	-	-
Indicated	0.1	1.6	0.5	0.23	1.1	0.3	0.2
Inferred	-	-	-	-	-	-	-
Total	**0.1**	**1.6**	**0.5**	**0.23**	**1.1**	**0.3**	**0.2**
Primary Copper[2]							
Measured	-	-	-	-	-	-	-
Indicated	0.62	1.5	0.16	0.47	9.6	1.0	2.9
Inferred	-	-	-	-	-	-	-
Total	**0.6**	**1.5**	**0.2**	**0.47**	**9.6**	**1.0**	**2.9**
Sokoroshe 2 Copper Total	**3.6**	**2.0**	**1.5**	**0.39**	**72**	**53**	**14**
Oxide-TMO Cobalt[3]							
Measured	-	-	-	-	-	-	-
Indicated	0.63	0.24	0.14	0.51	1.5	0.85	3.2
Inferred	0.31	0.35	0.27	0.31	1.1	0.53	0.96
Total	**0.93**	**0.27**	**0.15**	**0.45**	**2.6**	**1.4**	**4.2**
Primary Cobalt[4]							
Measured	-	-	-	-	-	-	-
Indicated	0.05	0.53	0.07	0.64	0.25	0.03	0.30
Inferred	-	-	-	-	-	-	-
Total	**0.05**	**0.53**	**0.07**	**0.64**	**0.25**	**0.03**	**0.30**
Sokoroshe 2 Cobalt Total	**0.98**	**0.29**	**0.14**	**0.46**	**2.8**	**1.4**	**4.5**
Combined Total	**4.6**	**1.6**	**1.2**	**0.40**	**74**	**54**	**18**

[1] 0.6% CuAS cut-off grade

[2] 0.8% Cu cut-off grade

[3] 0.2% Co cut-off grade

[4] 0.2% Co cut-off grade

All Mineral Resources are contained within a US$4.05/lb Cu and US$30.30/lb Co pit shell

Contained metal does not imply recoverable metal.

Figures are rounded according to JORC Code guidelines and may show apparent addition errors.

7.2.2 Mineral Resources JORC 2012 Assessment and Reporting Criteria

The following information provided in Table 24 complies with the 2012 JORC Code requirements specified by "Table-1 Section 1-3" of the Code.

Table 24 JORC 2012 Code Table 1 Assessment and Reporting Criteria for Sokoroshe 2 Mineral Resource 2022

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
Sampling techniques	• A combination of reverse circulation drilling (RC) and diamond drilling (DD) were completed in the Project area. • Mineralised zones within the drill core were identified based on combined parameters, including lithological and alteration logging, mineralogical logging and systematic spot pXRF readings. • DD core was sampled nominally at 1m intervals within mineralised zones while unmineralised zones were sampled generally at 2m intervals and as much as 5.3m Sampling was carried out by longitudinally cutting PQ and HQ drill core using an Almonte automatic diamond saw and sampling half-core, with half-core retained for future reference. PQ drill core was quartered and sampled, and three-quarters of the PQ core was retained for future reference. • RC drill cuttings were collected in 1m bulk samples from a rig mounted cyclone. Lithological and mineralogical logging, supported by systematic spot pXRF readings, were used to identify mineralised and unmineralised zones in the RC chips. Samples from mineralized zones were riffle split every 1m to obtain a representative (~2.5kg) sample. Samples from unmineralised zones were riffle split and composited to 2m intervals. Wet samples were sun dried in ambient air before splitting and compositing. Overall, 81% of the samples were less than 2m, with mineralised samples taken at nominal 1m intervals. • Samples were crushed (>70% passing 2mm), split and pulverised (>85% passing 75µm) at an on-site laboratory at the MMG core yard facility in Lubumbashi. 100 grams of pulp material was sent to the SANAS ISO 17025 accredited laboratories (ALS in Johannesburg and SSM in Kolwezi). • The sample types, nature, quality and sample preparation techniques are considered appropriate for the nature of mineralisation within the Project (sediment hosted base metal mineralisation) by the Competent Person.
Drilling techniques	• Diamond drilling: PQ and HQ sizes, with triple tube to maximise recovery except for 13 holes drilled in 2021. At the end of each drilling run, the core was marked with an orientation mark by using a REFLEX ACE tool. An orientation line was then drawn along the axis of the core if two consecutive orientations marks could be aligned by docking core pieces. • Reverse circulation drilling: A hammer bit was used for drilling a 5.25-inch (133mm) diameter hole. The cyclone was manually cleaned at the start of each shift, after any wet samples, and after each hole. Compressed air from the drilling machine was used to clean/blow out material from the RC rods, hoses, and cyclone after each rod.
Drill sample recovery	• DD core recovery was measured using tape measure, measuring actual core recovered between the core block versus drilled interval at 1 cm precision. Overall DD core recovery averaged 85% across the Project area.

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**

	- RC chip recovery was measured by weighing each 1m sample bag immediately following collection from the cyclone. Sample returns for RC drilling has been calculated at 72%
	- Sample recovery during diamond drilling was maximised using the following methods:
	  o Short drill runs (~50cm).
	  o Using drilling additives, muds and chemicals to improve broken ground conditions.
	  o Using triple tube core barrels.
	  o Reducing water pressure to prevent washout of friable material.
	- Sample recovery during RC drilling was maximized using the following methods:
	  o Adjusting air pressures to the prevailing ground condition.
	  o Using new hammer bits and replacing when showing signs of wear.
	- No relationship between sample recovery and grade was demonstrated in diamond drilling drill results.

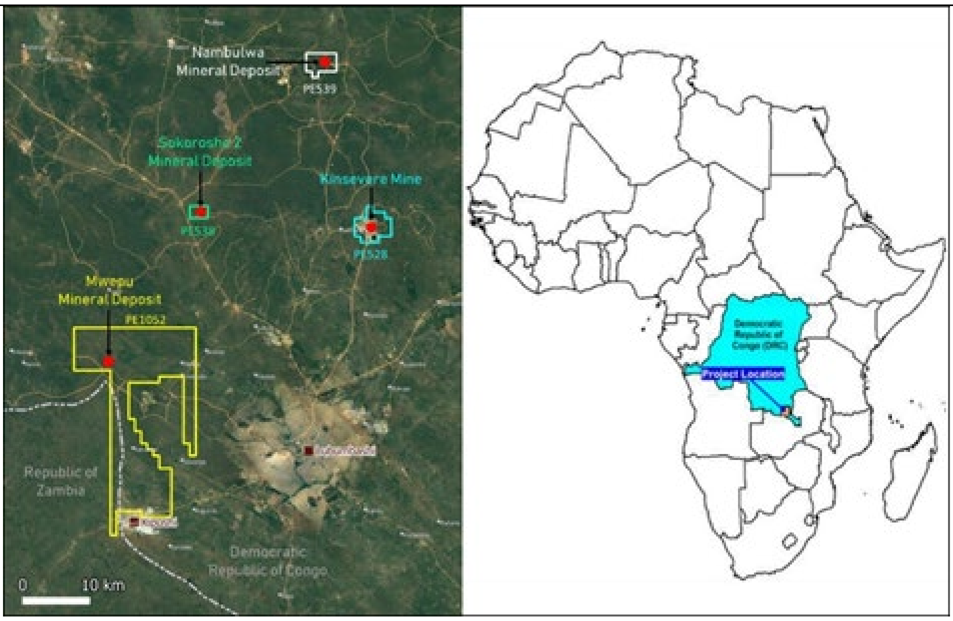
Logging	- DD core and RC chips have been geologically logged and entered into the MMG database (Geobank). The level of detail supports the estimation of Mineral Resources. - Qualitative logging includes lithology, mineralisation type, oxidation type, weathering type, colour and alteration types. Quantitative logging includes mineralisation mineral percentage, alteration mineral percentage and, in the case of core, RQD and structural data have been recorded. - All core and chip samples have been photographed (wet and dry). - 100% of core and chips have been logged.
Sub-sampling techniques and sample preparation	- DD core was split in half longitudinally (HQ size) or quartered (PQ size) using an Almonte automatic diamond saw. Sample lengths were cut as close to nominal 1m intervals as possible while also respecting geological contacts. Samples were generally ~2.5kg in weight. - RC samples were collected from a cyclone every metre by a trained driller's assistant. If the sample was dry the sample was passed through a riffle splitter and a ~2.5kg split was collected into a pre-numbered clear plastic bag. Residual material was sampled and sieved for collection into chip trays for logging and the remainder returned to the larger poly-weave bag (bulk reject). The splitter was cleaned using compressed air or a clean brush and tapped using a rubber mallet. If the sample was wet, the sample was sun and air dried before being split according to the above procedure. Field duplicates were inserted at a rate of approximately 5% to ensure sampling precision was measured. - Samples from individual drillholes were sent in a single dispatch to the onsite MMG laboratory at the MMG core yard facility in Lubumbashi. - The drill core and drill chip samples were received, recorded on the sample sheet, weighed, and dried at average temperature of 105◦C for 8 hours (or more depending on wetness) at the sample preparation laboratory.

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	- Samples were crushed and homogenised in a jaw crusher to >70% passing 2mm. The jaw crusher was cleaned with a barren quartz blank after every crushed sample. The sample size was reduced to 1000g in a riffle splitter and pulverised in an LM2 pulveriser to >85% passing 75 microns. QC grind checks were carried out using wet sieving at 75µm on 1 in 10 samples. - 100 grams of pulp material were sent to the SANAS accredited ALS Chemex Laboratory in Johannesburg and SSM Laboratory in Kolwezi. - Crush and pulp duplicates were submitted for QAQC purposes. - Certified reference material was also inserted and submitted to ALS for analysis at a rate of 1 of each high, medium, and low copper grade per 30 samples. - The sample size is appropriate for the grain size and distribution of the minerals of interest.
Quality of assay data and laboratory tests	- MMG preparation laboratory used the ALS Chemex Laboratory preparation protocol PREP-31B for drill core and drill chip samples. - ALS Chemex Laboratory provides 48 multi-element geochemistry by HF-HNO3-HClO4 acid digestion, HCl leach followed by ICP-AES and ICP-MS analysis. SSM laboratory provided 44 multi-element geochemistry by HF-HNO3-HClO4 acid digestion, HCl leach followed by ICP-OES finish. Four-acid digest is considered a total digestion. Acid soluble copper was analysed using the H2SO4-Na2SO3 leach with AAS finish for samples with total copper greater than 1,000 ppm. - No geophysical tools, spectrometers (apart from those used in the assay laboratory) or handheld XRF instruments have been used for data included in the estimation of the Sokoroshe 2 Mineral Resource. - ~15% QAQC samples were incorporated, including blanks, duplicates (field, crush, and pulp) and certified reference material per sample analysis batch. Second laboratory duplicates were selected and analysed at Intertek Genalysis using similar methods as ALS Chemex. Results indicate that assay analysis has been undertaken to an acceptable level of accuracy and precision. - No significant QAQC issues have been found. CRMs show less than 2% relative bias. Duplicate results show very good correlation against original results.
Verification of sampling and assaying	- Significant intercepts have been verified by comparison against the geological log, which has been checked by several MMG personnel. - 5 RC holes were twinned with diamond drilling to check for quality and 3 diamond drillholes were twinned to extend the intersection of the holes that previously stopped in mineralisation. The RC holes compared poorly to some of the DD holes, while the DD-DD twinning compared well. The RC and twinned DD holes in the northern mineralisation were drilled in deeply weathered areas and these were reviewed individually for use in grade estimation. - Primary data is stored in a Geobank® database, which is maintained according to MMG database protocols. Data is logged, entered and verified in the process of data management. The database is stored on an MMG server and routinely backed up. - No adjustment has been made to assay data.

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
Location of data points	• Planned collar positions for both DD and RC drilling were located using handheld GPS devices to ±5m accuracy. • Post drilling, actual collar positions were surveyed using DGPS (Geomax Zenith 25 Pro and Topcon Hiper II) and are considered to be of high accuracy. • Sokoroshe 2 uses the projected coordinate system WGS84 Universal Transverse Mercator (UTM), ellipsoid 35 south. • A TN14 GYROCOMPASS™ was used to align the drill rig to the correct azimuth and dip angles. • Downhole surveys were done using the REFLEX EZ-TRAC survey instrument. Downhole surveys were not carried out on RC drillholes. Azimuth and dip were extrapolated from measurements taken from the surface using compass and clinometer. • The surface Digital Terrain Model (DTM) for the Project was generated from the Airborne Geophysics XCalibur surveys carried out in 2015. The dataset was found to be adequate with topographic control to ±3m accuracy. High resolution DEM for the Sokoroshe 2 pit area was surveyed with LiDAR technology on 02 August 2017.
Data spacing and distribution	• DD and RC drillholes were predominantly drilled at inclinations of between 50° and 60° to intersect generally steeply dipping mineralisation. • Drilling azimuths were as close as practical to orthogonal to the mineralised trend. Drillhole data were spaced on approximately 40m (N-S oriented) drill sections with holes on section spaced 40m to 70m apart. • Additional drilling is required to satisfy local estimate of tonne and grades to a Measured classification in the south. Quality issues and high variability prevent the reporting of Indicated Mineral Resources in the northern zones at the current drillhole spacing. • No additional sample compositing has been applied in the data, aside from that used in the estimation process.
Orientation of data in relation to geological structure	• The orientation of sampling is across the mineral deposit and is considered to represent unbiased sampling of the deposit. However, alternate drilling orientations have not been undertaken to confirm this. • No sampling bias is thought to have been introduced by the relationship of drilling orientation to key mineralised structures.
Sample security	• Samples were transported from the field and delivered to the sample processing facility in Lubumbashi for cutting and preparation. Polyethylene foam, tarpaulins, and cargo nets were used to secure the load in the pick-up vehicle tray and to avoid possible shifting of core during transport. • RC chip sampling was conducted in the field. Chip samples were packed in labelled plastic bags along with a labelled plastic ID tag. • The plastic bags were tied with cable ties to secure the sample and to prevent contamination. • A set of 15 plastic sample bags were packed into labelled poly-weave bags, ready to be shipped from the field to the sample preparation laboratory in Lubumbashi.

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	- Field packing documents and sample sheets were prepared and sent together with the core trays and poly-weave bags to the sample preparation laboratory in Lubumbashi. - After sample preparation, bar-coded envelopes of 100-200g of pulp for each sample were inserted into boxes of ~35 envelopes each, labelled with dispatch ID and laboratory destination to be sent by DHL courier to ALS Chemex in Johannesburg and to SSM in Kolwezi. - Two sets of duplicate pulps of 100-200g were inserted into labelled boxes of ~35 envelopes each to be stored on site in storage containers.
Audit and reviews	- No external audits or reviews of sampling techniques and data have been conducted for the Sokoroshe 2 project. - Data has been reviewed by the Competent Person as part of the previous Mineral Resource estimate. No significant issues were identified.

Section 2 Reporting of Exploration Results	
Criteria	**Commentary**
Mineral tenement and land tenure status	- The Sokoroshe 2 project consists of one mining tenement or Permis d'Exploitation, PE538, with an area of 6 cadastral units (about 5.1 km^2). The mineral rights of PE538 are held by La Générale des Carrierés et des Mines (Gécamines), the DRC state-owned mining company. MMG rights to the tenement are granted under the terms of the Mutoshi Swap Framework Agreement. - MMG declared an Inferred Mineral Resource on 17 March 2017 to retain the lease holding and transition it from a status of Exploration Period to Development Period under the terms of the agreement. According to the agreement, the "Development Period" shall start on the date on which the first Development Work Program has been agreed between Gécamines and MMG Kinsevere (the Development Period start date). The Development Period shall have a duration of 5 calendar years (1825 days) from the Development Period start date. MMG Kinsevere must establish Proved Reserves to achieve a viable economic exploitation of the deposits contained in the retained permits viz. PE538 Sokoroshe 2. MMG Kinsevere submitted its first Development Work Program to Gécamines for approval on 4 July 2017. Pursuant to clause 6.2.4(i), Gécamines was provided with 30 days to express its comments or disagreement on the first Development Work Program, which will then be deemed accepted in the absence of receipt of comments or disagreement of Gécamines within this period. MMG Kinsevere did not receive any comments or disagreement from Gécamines within the 30-day period (or any following period). Accordingly, the first Development Work Program was deemed accepted by Gécamines as from 4 August 2017 and the Development Period Start Date was also 4 August 2017. - On 1 July 2022, MMG personnel conducting works at the Sokoroshe 2 lease were removed by armed forces who claimed Gécamines had signed two research contracts for the area with third parties. MMG continues to be denied access to the Sokoroshe 2 lease. MMG has also recently become aware that the third party has commenced pre-stripping works at the site, which contravenes DRC law. On 21 October, MMG

Section 2 Reporting of Exploration Results	
Criteria	**Commentary**
	filed arbitral proceedings against La Générale des Carrières et des Mines S.A. (Gécamines) before the International Chamber of Commerce.
Exploration done by other parties	• Soil sampling on 120m by 120m grid and geology mapping were done in 1976 by Gécamines. No data is available for this work. • Ruashi Holdings/Metorex carried out unknown exploration work in 2005 at Sokoroshe 2. No data is available for this work.
Geology	• Sediment-hosted copper deposit, hosted in the lower part of the Neoproterozoic Katanga Supergroup in the Roan Group. • Copper mineralisation occurs mainly as oxide fill and replacement, veins and disseminations in variably weathered, laminated dolomites and carbonaceous siltstones. • Primary copper mineralogy comprises chalcopyrite, bornite, and chalcocite in decreasing abundance. Oxide copper mineralogy comprises primarily malachite with trace amounts of chrysocolla.
Drill hole information	• Not applicable
Data aggregation methods	• No applicable
Relationship between mineralisation width and intercept lengths	• Not applicable
Diagrams	 *Figure 1: Sokoroshe 2 project location*

Section 2 Reporting of Exploration Results	
Criteria	**Commentary**
Balanced reporting	- All drill holes and assay results have been considered in the construction of low- and high-grade domains for the Sokoroshe 2 Mineral Resource estimate.
Other substantive exploration data	- Airborne Geophysics - TEMPEST survey - Airborne EM, magnetic, and radiometric surveys were flown at the end of 2013. A channel 7 EM conductor was identified to the east of the Sokoroshe 2 occurrence. - Geological mapping was conducted in 2014. Mapping results indicated lithologies from the Roan Group, the main host rock to the mineralization. Younger lithologies were also noted from the Nguba and Kundelungu Groups. - Surface geochemistry: o Termite mound sampling on 100m by 100m grid was completed in 2014, which effectively identified copper anomalous zones within the tenement. - Airborne Geophysics - Xcalibur survey, flown in 2015 o Magnetics – effective at mapping structural and stratigraphic domains o Radiometrics - effective at mapping lithological contrasts and regolith domains.
Further work	- Infill drilling where required to upgrade Inferred to Indicated - Detailed mining and investment studies.

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
Database integrity	- The MMG Exploration database systems are SQL server and GBis/Geobank® management software. All geological and analytical data are managed in MMG's Corporate Geoscience Database. GIS data are stored in secure shared folders on the Lubumbashi server. - All data capture via GM logging profiles having strong internal validation criteria. The technician/geologist conducts first validation steps by checking intervals, description and accuracy of records using their "tough books". - Validation rules are predefined in each of the database tables. Only valid codes get imported into the database. - The sampling and geochemical data are stored in a local version of SQL database that gets replicated to a similar version on the Head Office server with daily, weekly and monthly backups.
Site visits	- The previous Competent Person visited the Sokoroshe 2 site in February 2018 and has visited the Kinsevere deposit and several other oxide copper deposits in the Katanga province, which are also similar in style to the Sokoroshe 2 mineral deposit. - The current Competent Person has not visited the site but has inspected several drillholes and the MMG drillhole sample processing facility in Lubumbashi.
Geological interpretation	- There is reasonable confidence in the interpretation of geology which guides the directional grade trends. - Geological interpretation of the mineral deposit is based on available drilling and reports of observed geology and structure at surface. Infill drilling has confirmed the previous geological interpretation.
Dimensions	- The Sokoroshe 2 northern mineralisation is interpreted to occur over a distance of 780m along strike, 190m down dip and is 30m thick and the southern mineralisation has a strike length of up to 300m, 195m down dip and is 70m thick.
Estimation and modelling techniques	- Six holes were partially or fully discarded from the twin drilling in the western part of the northern mineralisation for estimation purposes. Each set of holes was examined and a collaborative decision between MSA and MMG was made on whether to accept or reject either a DD or RC hole based on quality criteria - Mineralisation and other wireframes were modelled in Leapfrog Geo, the statistical work was completed using Snowden Supervisor V8 software and grade estimation was completed using Datamine Studio RM. - Three copper and cobalt mineralisation wireframes were modelled at 0.4% and 0.1% thresholds, respectively, which formed the basis for estimation domains. In addition, surfaces were modelled at 1.0% Ca, indicating a calcium leached zone, and 0.1% S. Acid soluble surfaces for copper and cobalt were also created at a 0.5 acid soluble threshold. - Variograms were modelled for copper and cobalt in the main northern domain (1) and the southern domain (4). - Total copper, total cobalt and solubility ratios were estimated into the parent cells using ordinary kriging within the copper domains. The grades were estimated using a minimum of 8 and a maximum of 14 composites, with a maximum of 6 per hole. A three-pass strategy was used with the first search ellipse of 60m by 60m by 10m,

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
	the second search was two times the first search and the third search was 10 times the first search to allow all blocks to have estimated grades. The Datamine process "Dynamic Anisotropy" was used to align the search ellipse to the mineralisation wireframes. The acid soluble grades were calculated by multiplying the total copper/cobalt by the estimated acid-soluble ratios. • Ca, S, Mg and Mn were estimated into parent cells using inverse distance. • Ca and S were estimated in relation to the respective surfaces modelled, with grades estimated in the zones above these surfaces aligned to the trend of the surface. • The grades for Ca and S below the surfaces, as well as Mg and Mn were estimated aligned to the stratigraphic contacts using Dynamic Anisotropy. A similar kriging neighbourhood to that used for the total copper/cobalt estimate was used. • Copper and cobalt grades were not capped for estimation because the high grades plotted close to each other forming high grade sub-domains.
Moisture	• Estimated tonnes are on a dry basis.
Cut-off parameters	• The Oxide Mineral Resource has been reported above an acid soluble copper cut-off grade of 0.6% and an acid soluble to total copper ratio greater than or equal to 0.5. • The transitional and mixed ore (TMO) Mineral Resource has been reported above a total copper cut-off grade of 0.6% and an acid soluble to total copper ratio between 0.2 and 0.5. • The sulphide Mineral Resource has been reported above a total copper cut-off grade of 0.6% and an acid soluble to total copper ratio of less than 0.2. • The cobalt resource (mineralisation outside the copper zones) was reported at a cut-off grade of 0.2% Co. • The reported Mineral Resources have been constrained within a US$4.05/lb Cu and US$30.3/lb Co Whittle optimised pit shell. The reported cut-off grade and the pit-shell price assumptions are in line with MMG's policy for reporting of Mineral Resources based on reasonable prospects for eventual economic extraction.
Mining factors or assumptions	• The mining method is assumed to be open pit with trucks and excavators.
Metallurgical factors or assumptions	• At this stage of project development, metallurgical recovery assumptions are based on Kinsevere Expansion Project (KEP) recoveries. As such, the criteria impacting the resource cut-off grades and reportable pit shell inputs are based on the proposed KEP flowsheet and infrastructure upgrades. The upgraded flowsheet will consist of the following changes: ○ - Oxide pre-flotation circuit and leach tank modifications 2.3mtpa ○ - Oxide leach upgrades to convert to reductive leach conditions ○ -Sulphide Concentrator 2.2mtpa capacity ○ -Roaster circuit including off-gas cleaning, acid plant and concentrate storage ○ -Cobalt Recovery circuit to produce high grade Cobalt hydroxide

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
	○ -SX plant modifications
Environmental factors or assumptions	• Environmental factors include increased land surface disturbance and the required rehabilitation for this site, including final pit excavation and waste rock storage. All ore piles are expected to be transported to Kinsevere for treatment.
Bulk density	• Bulk density measurements have been undertaken using weight in air and weight in water. Measurement technique included wax immersion to prevent over estimation due to the porous nature of oxide samples. Wet samples are oven dried prior to measurement. • A total of 367 density values were included in the data. • Due to a limited number of density values, mean density values were applied to stratigraphic units sub-divided by the calcium grade domain boundary surface. These were compared to the values used in the previous estimate and where there were large discrepancies the values were reviewed and adjusted where necessary.
Classification	• The northern mineralised zones are mainly drilled with RC and the southern mineralised zones are mainly drilled with DD. Where there was deep weathering in the main northern zone, twin drilling was completed. The twin drillhole data was reviewed by MSA and MMG Exploration, which resulted in discarding data of poorer quality. • Grade continuity was demonstrated by variograms modelled for the southern and main northern zone. • The main northern and southern zones were classified at Indicated, and the secondary northern mineralised zones was classified at Inferred.
Audits or reviews	• No external audits or reviews of this Mineral Resource estimate have been undertaken aside from checks by the Competent Person.
Discussion of relative accuracy/ confidence	• All mineralised zones were drilled at approximately 50m spacing, at which grade continuity is visually exhibited between holes. Variograms were modelled for the main northern and southern mineralised zones demonstrating continuity of grade. The lack of robust variograms for the secondary northern mineralised zone indicates poor continuity of grades. Hence the main northern and southern mineralised zones are classified at Indicated, and the secondary northern mineralised zone is classified at Inferred. • The northern mineralised zones (domains 1 and 3) were predominantly drilled using RC. Twinning of the RC was completed specifically on areas of concern due to deep weathering. Diamond twin drilling of the RC holes in the eastern part of the main northern mineralisation (domain 1) showed discrepancies between the drillhole types. A review of the RC and the twin holes was completed, and holes of poorer quality were discarded from estimation. According to the MMG Exploration Manager, no concerns were noted for drilling in the rest of the deposit.

7.2.3 Statement of Compliance with JORC Code Reporting Criteria and Consent to Release

This Mineral Resource statement has been compiled in accordance with the guidelines defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("2012 JORC Code").

7.2.3.1 Competent Person Statement

I, Jeremy Charles Witley, confirm that I am the Competent Person for the Sokoroshe 2 Mineral Resource section of this Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having five years' experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Fellow of The Geological Society of South Africa (Membership No. 60286) and I am a Registered Professional Natural Scientist (Geological Science) with the South African Council for Natural Scientific Professions (SACNASP) – Reg No 400181/05.
- I have reviewed the relevant Sokoroshe 2 Mineral Resource section of this Report to which this Consent Statement applies.

I am a full-time employee of The MSA Group (Pty) Ltd.

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Sokoroshe 2 Mineral Resource section of this Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in the supporting documentation relating to the Sokoroshe 2 Mineral Resources.

7.2.3.2 Competent Person Consent

Pursuant to the requirements Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

With respect to the sections of this report for which I am responsible – the Sokoroshe 2 Mineral Resources - I consent to the release of the 2022 Mineral Resources and Ore Reserves Statement as at 30 June 2022 Executive Summary and Technical Appendix Report and this Consent Statement by the directors of MMG Limited:

This signature was scanned for the exclusive use in this document – the *MMG Mineral Resource and Ore Reserve Statement as at 30 June 2022* – with the author's approval. Any other use is not authorised.

____

Date: 24/10/2022

Jeremy Charles Witley, BSc Hons (Mining Geology), MSc (Eng), Pr. Sci. Nat. (400181/05) FGSSA (60286)

This signature was scanned for the exclusive use in this document – the *MMG Mineral Resource and Ore Reserve Statement as at 30 June 2022* – with the author's approval. Any other use is not authorised.

Wony Diergaardt,
Johannesburg North

Signature of Witness:

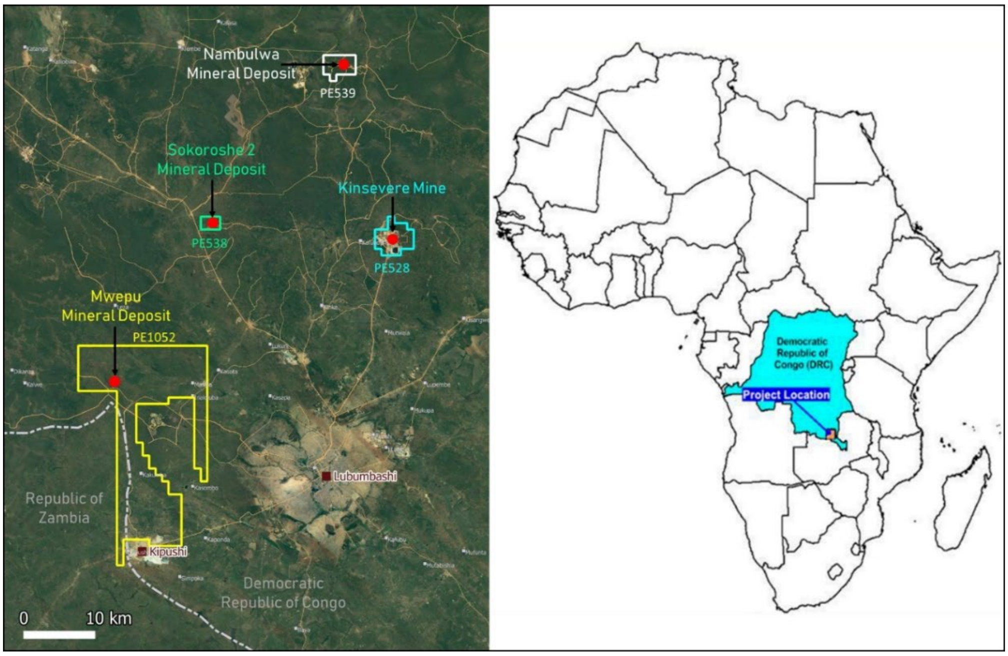
Witness Name and Residence: (e.g. town/suburb)

8 MWEPU

8.1 Introduction and Setting

The Mwepu Project is located within lease PE1052 in Democratic Republic of Congo, DRC. From the Kinsevere copper (Cu) mine, the Project is located some 40km to the SW (Figure 8-1).

Figure 8-1 Mwepu project location



The lease belongs to the DRC state owned mining company GÉCAMINES and was granted to MMG under a 3-year exploration agreement which became effective in March 2017. A 2-year extension to this agreement was granted by GÉCAMINES in late 2019, extending the term of the agreement to March 2022. MMG submitted the required study documentation to GÉCAMINES in October 2021 however the extension to the agreement has been delayed. MMG is confident GÉCAMINES that the agreement will be extended.

8.2 Mineral Resources – Mwepu

8.2.1 Results

The 2022 Mwepu Mineral Resource is summarised in Table 25. There are no Ore Reserves for the Mwepu deposit.

Table 25 2022 Mwepu Mineral Resource tonnage and grade (as at 30 June 2022)

Mwepu Mineral Resource

					Contained Metal		
Mwepu Oxide Copper[2]	**Tonnes (Mt)**	**Copper (% Cu)**	**Copper (AS**[1] **% Cu)**	**Cobalt (% Co)**	**Copper (kt)**	**Copper AS (kt)**	**Cobalt (kt)**
Measured	-	-	-	-	-	-	-
Indicated	0.75	2.5	2.0	0.17	19	15	1.3
Inferred	0.45	2.7	2.1	0.29	12	9.3	1.3
Total	1.2	2.6	2.1	0.22	31	25	2.6
Mwepu TMO Copper[3]							
Measured	-	-	-	-	-	-	-
Indicated	0.20	1.3	0.5	0.18	2.6	1.0	0.4
Inferred	0.18	1.4	0.6	0.22	2.5	1.0	0.4
Total	0.38	1.3	0.5	0.20	5.1	2.1	0.8
Mwepu Oxide-TMO Cobalt[4]							
Measured	-	-	-	-	-	-	-
Indicated	0.04	0.71	0.34	0.45	0.25	0.12	0.16
Inferred	0.05	0.68	0.33	0.44	0.36	0.18	0.23
Total	0.09	0.69	0.33	0.45	0.62	0.30	0.40
Mwepu Primary Cobalt[5]							
Measured	-	-	-	-	-	-	-
Indicated	0.07	0.25	0.03	0.31	0.18	0.02	0.23
Inferred	0.20	0.27	0.03	0.42	0.53	0.06	0.83
Total	0.27	0.26	0.03	0.39	0.72	0.08	1.06
Combined Total	**1.9**	**1.9**	**1.4**	**0.25**	**37**	**27**	**4.8**

[1] AS stands for Acid Soluble

[2] 0.75% Cu cut-off grade

[3] 1.0% Cu cut-off grade

[4] 0.3% Co cut-off grade

[5] 0.2% Co cut-off grade

All Mineral Resources except stockpiles are contained within a US$4.04/lb Cu and US$30.30/lb Co pit shell

Contained metal does not imply recoverable metal.

Figures are rounded according to JORC Code guidelines and may show apparent addition errors.

8.2.2 Mineral Resources JORC 2012 Assessment and Reporting Criteria

The following information provided in Table 26 complies with the 2012 JORC Code requirements specified by "Table-1 Section 1-3" of the Code.

Table 26 JORC 2012 Code Table 1 Assessment and Reporting Criteria for the Mwepu Mineral Resources 2022

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
Sampling techniques	• A combination of reverse circulation drilling (RC) and diamond drilling (DD) was completed at the Mwepu Project. • Mineralized zones within the drill core were identified based on a combination of lithological, mineralogical, and alteration logging, along with systematic spot pXRF readings. • DD core was sampled nominally at 1m intervals within mineralized zones while unmineralized zones were sampled at 2m or 4m intervals. Sampling was carried out by longitudinally cutting PQ and HQ drill core using an Almonte automatic diamond saw. HQ drill core was cut into halves, with half-core retained for future reference. PQ drill core was quartered and sampled with three-quarters of the core retained for future reference. • RC drill cuttings were collected in 1m bulk samples from a rig mounted cyclone. Lithological and mineralogical logging, along with systematic spot pXRF readings, were used to differentiate mineralized and unmineralized zones. Samples from mineralized zones were manually riffle split every 1m to obtain a representative (~2.5kg) sample. Samples from unmineralized zones were riffle split and composited to 2m intervals. Wet samples were dried in ambient air before splitting and compositing. • 70% of the samples were collected as 1m intervals and 30% were collected as 2m or longer intervals. • Samples were crushed, split and pulverized (>85% passing 75µm) at the core processing laboratory located at the MMG core yard facility in Lubumbashi. 100 grams of pulp material was sent to the SANAS accredited ALS Laboratories in Johannesburg. • The sample types, nature, quality and sample preparation techniques are considered appropriate for the nature of mineralization within the Project (sediment hosted base metal mineralization) by the Competent Person.
Drilling techniques	• Diamond drilling: PQ and HQ core sizes with triple tube to maximize recovery. At the end of each drilling run the core was marked with an orientation mark by using a REFLEX ACE tool. An orientation line was then drawn along the axis of the core if two consecutive orientations marks could be aligned by docking core pieces. • Reverse circulation drilling: A hammer bit was used for drilling a 5.25-inch (133mm) diameter hole. The cyclone was manually cleaned at the start of each shift, after any wet samples and after each hole. Compressed air from the drilling machine was used to clean/blow out material from the RC rods, hoses, and cyclone after each rod length was drilled.
Drill sample recovery	• Overall, DD core recovery averaged 85% across the Project area. As expected, the recovery dropped in unconsolidated/highly weathered ground. Above 50m depth, core recovery averaged 77%, and below 50m, core recovery averaged 87%.

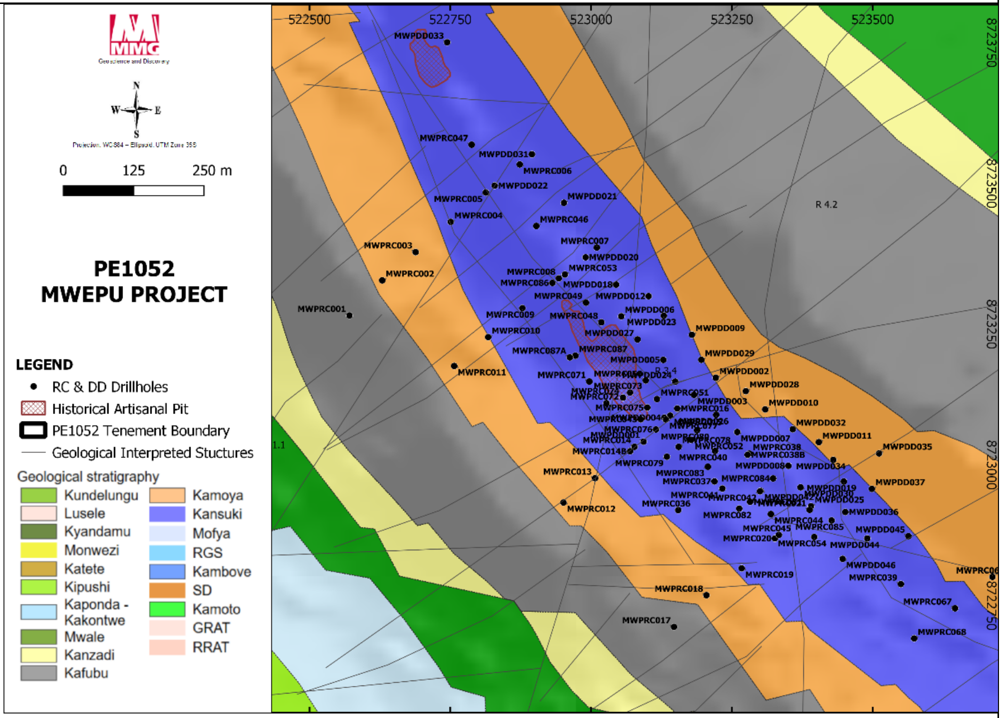
Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	• Actual versus recovered drilling lengths were captured by the driller and an on-site rig technician using a measuring tape. Measured accuracy was to 1cm. The core recoveries were calculated in a digital database during export. • Sample recovery during diamond drilling was maximized using the following methods: o Short drill runs (maximum 1.5m) o Using drilling additives, muds and chemicals to improve broken ground conditions. o Use of triple tube core barrel. o Reducing water pressure to prevent washout of friable/unconsolidated material. • Drilling rates varied depending on the actual and forecast ground conditions. • Core loss was recorded at the rig and assigned to intervals where visible loss occurred. Cavities were noted. • Bias due to core loss has not been determined. • RC cuttings recovery was measured by weighing each 1m sample bag immediately following collection from the cyclone. • Sample returns for RC drilling have been calculated at 68% recovery. • Sample recovery during RC drilling was maximized using the following methods: o Adjusting air pressures to the prevailing ground condition. o Using new hammer bits and replacing when showing signs of wear.
Logging	• All drill samples (DD core and RC chips) were geologically logged using a GeoBank Mobile® interface and uploaded to a central Geobank® database. • Qualitative logging includes lithology, mineralization type, oxidation type, weathering type, colour and alteration types. Quantitative logging includes mineralization mineral percentage, alteration mineral percentage and in the case of core, RQD and structural data have been recorded. • All the core and chip samples were photographed both wet and dry. • 100% of core and chips have been logged with the above information.
Sub-sampling techniques and sample preparation	• DD core was split in half longitudinally (HQ size) or quartered (PQ size) using an Almonte automatic diamond saw. • Sample lengths were cut as close to nominal 1m intervals as possible while also respecting geological contacts. Samples were generally ~2.5kg in weight. • RC samples were collected from a cyclone every metre by a trained driller's assistant. If the sample was dry, the sample was passed through a riffle splitter and a ~2.5kg split was collected into a pre-numbered calico bag. Residual material was sampled and sieved for collection into chip trays for logging and the remainder returned to a larger poly-weave bag (bulk reject). The splitter was cleaned using compressed air or a clean brush and tapped using a rubber mallet. If the sample was wet, the sample was air dried before being split according to the above procedure.

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	- For RC drilling, field duplicates were inserted at a rate of approximately 5% to ensure sampling precision was measured. - Samples from individual drillholes were sent in a single dispatch to the MMG laboratory at the MMG core yard facility in Lubumbashi. - Samples were received, recorded on the sample sheet, weighed, and dried at 105°C for 4 to 8 hours (or more), depending on dampness, at the sample preparation laboratory. - Samples were crushed and homogenized in a jaw crusher to >70% passing 2mm. The jaw crusher was cleaned with a barren quartz blank after every crushed sample. - The sample size was reduced to 1kg in a riffle splitter and pulverized in an LM2 pulverizer to >85% passing 75µm. QC grind checks were carried out using wet sieving at 75µm for every 1 in 10 samples. - 100 grams of pulp material were sent to the SANAS accredited ALS Laboratories in Johannesburg. - Crush and pulp duplicates were submitted for QAQC purposes. - Certified reference material was also inserted and submitted to ALS for analysis at a rate of 1 of each high, medium, and low copper grade per 30 samples. - The sample size is appropriate for the grain size and distribution of the minerals of interest.
Quality of assay data and laboratory tests	- All samples were sent to ALS Chemex Laboratory in Johannesburg - Samples were analyzed using a 4-acid digest with ICP MS finish. 48 elements were analyzed in total. - Acid soluble copper assays were only performed when the total copper assay was greater than 1,000 ppm. - ~15% QAQC samples were incorporated, including blanks, duplicates (field, crush, and pulp) and certified reference material per sample analysis batch. - QAQC data have been interrogated with no significant biases or precision issues. Several acid soluble values of Cu and Co were higher than the total copper values. Lab investigations and re-analyses were completed – all issues were addressed and rectified and re-assay results accepted.
Verification of sampling and assaying	- Significant intersections have been reviewed by competent MMG employees. - No twin drilling was completed. - Data are stored in a SQL database with a Geobank® interface. - No adjustments to assay data were made.
Location of data points	- Planned collar positions for both diamond drilling and RC drilling were located using handheld GPS devices to ±5m accuracy. - Post-drilling, actual collar positions were surveyed using DGPS (Geomax Zenith 25 Pro and Topcon Hiper II) and are of high accuracy. - Grid system is in WGS84/UTM35S

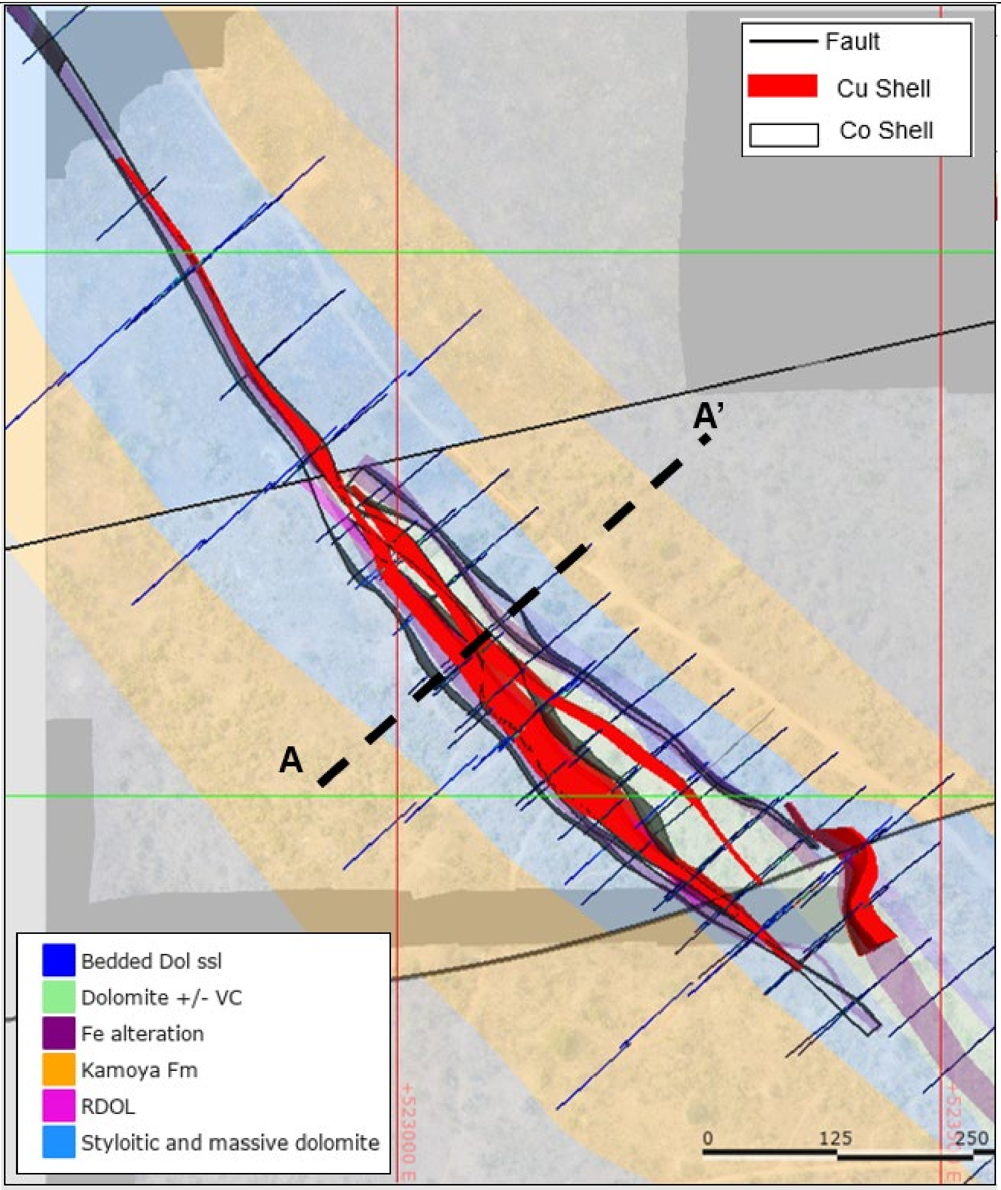
Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	- The TN14 GYROCOMPASS™ was used to align the drill rig to the correct azimuth and dip angles. - Downhole surveys were done using the REFLEX EZ-TRAC survey instrument. Downhole surveys were not carried out on RC drillholes. - All survey data was approved by the site geologist and stored in the IMBEXHUB-IQ cloud.
Data spacing and distribution	- The drillholes were drilled on north-east oriented sections approximately 40m to 50m apart, with sections at the peripherals having wider section spacing of 100m to 170m. Holes within sections were drilled at 25m to 80m spacing. - 2m or 4m composites were taken in zones of no visual mineralization. - Nominal 1m samples were taken in zones of mineralization. - No other sample compositing has been undertaken.
Orientation of data in relation to geological structure	- Holes were drilled in a scissor arrangement dipping between 50° and 60° to the north-east and south-west, to intersect the mineralisation fractures that predominantly dip vertically, with one mineralisation fracture in the south dipping at 60° to the south-west. - Some drillholes in Fracture 3 mineralisation were drilled down the dip of the mineralisation plane, which is not ideal and can result in bias as the across mineralisation is not well understood in such cases. Aside from that, no bias has been introduced by the drilling direction.
Sample security	- Samples were transported from the field and delivered to the MMG sample processing facility in Lubumbashi for cutting and preparation. Polyethylene foam, tarpaulins, and cargo nets were used to secure the load and to avoid possible shifting of core during transport. - RC chip sampling was conducted in the field. Chip samples were packed in labelled plastic bags along with a labelled plastic ID tag. - The plastic bags were tied with cable ties to secure the sample and to prevent contamination. - A set of 15 plastic sample bags were packed into labelled poly-weave bags, ready to be shipped from the field to the MMG sample preparation laboratory in Lubumbashi. - Field packing documents and sample sheets were prepared and sent together with the core trays and poly-weave bags to the sample preparation laboratory in Lubumbashi. - After sample preparation, bar-coded envelopes of 100-200g of pulp for each sample were inserted into boxes of ~40 envelopes each, labelled with dispatch ID and laboratory destination to be sent by DHL courier to ALS Chemex in Johannesburg. - Two sets of duplicate pulps of 100-200g were inserted into labelled boxes of ~40 envelopes each to be stored on site in storage containers.

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	• The shipment of pulps from Lubumbashi to ALS laboratories was done using DHL Courier services with waybill number for tracking. • The Lubumbashi sample preparation laboratory utilizes the ALS-Chemex LIM System installed at the Kinsevere mine site, generating a unique lab workorder for each batch sample in the analytical chain.
Audit and reviews	• No external audits or reviews of sampling techniques and data have been conducted.

Section 2 Reporting of Exploration Results	
Criteria	**Commentary**
Mineral tenement and land tenure status	• The Mwepu Project is located within lease PE1052 in the DRC. The lease belongs to the DRC state owned mining company Gécamines and was granted to MMG under a 3-year exploration agreement which became effective in March 2017. A 2-year extension to this agreement was granted by Gécamines in late 2019, extending the term of the agreement to March 2022. A Feasibility Study report was submitted to Gécamines in October 2022, which is a requirement for a decision to be made to extend the term of the agreement beyond March 2022. Minutes of meetings show that Gécamines is concerned about the length of time before mining is planned to commence. The Minutes show that extension to the agreement will be provided. MMG believes it retains the necessary tenure.
Exploration done by other parties	• Union Miniere (UMHK) first explored the Mwepu Project in 1925, attempting to define the stratigraphy and the tectonic framework of the area. • In 1966, UMHK produced a sketch geology map at 100,000 scale of a region which included the Mwepu tenement. This survey identified the presence of an NW trending anticline, comprised of Roan Group stratigraphy.
Geology	• Sedimentary hosted copper and cobalt. • Mineralization is hosted by the Neoproterozoic Katanga Supergroup within the R3 (Kansuki formation) stratigraphy. • Copper mineralization is both lithologically and structurally controlled and occurs predominantly within weathered dolomites and breccia. • The Mwepu deposit occurs at top the Roan Group of the Katanga Supergroup, in the axial plane of an overturned synclinal fold which is orientated north-west. Mwepu is a steeply dipping copper-cobalt oxide deposit. • Copper and cobalt mineralisation is believed to occur in fractures possibly associated with the fold axis, and in close association to iron alteration zones or ironstones within the stratigraphy. • Oxide copper mineralogy includes malachite and copper bearing clays. Oxide cobalt is often associated with Mn-Fe rich clays.

Section 2 Reporting of Exploration Results	
Criteria	**Commentary**
	- Sulphide copper mineralogy includes chalcocite with minor chalcopyrite and bornite. Sulphide mineralisation occurs below the base of oxidation and does not contribute significantly to the copper resource.
Drill hole information	- Not applicable.
Data aggregation methods	- Not applicable.
Relationship between mineralisation width and intercept lengths	- Not applicable.
Diagrams	 - **Collar locations for Mwepu resource delineation drilling.**

Section 2 Reporting of Exploration Results

Criteria	Commentary
	 **Mwepu geology and copper & cobalt grade shells. The dashed line designated A – A' is the location of the cross section shown in the following figure.130mN showing:** **Outline of the copper grade shell with downhole copper assays relative to geology and reporting pit** **Outline of the cobalt grade shell with downhole cobalt assays relative to geology and reporting pit** **Interpreted ore type volumes within downhole CuAS:CuT ratio data relative to geology and reporting pit** **Distribution of copper within the 2020 Mwepu MRE relative to geology and approximate weathering surface.**
Balanced reporting	• All drill holes and assay results have been considered in the construction of low- and high-grade domains for the Mwepu Mineral Resource estimate.

Section 2 Reporting of Exploration Results	
Criteria	**Commentary**
Other substantive exploration data	• Airborne Geophysics – Xcalibur high resolution airborne magnetics and radiometrics were flown in 2017. In 2019, some orientation ground geophysical campaigns including IP, Gravity and Passive Seismic were carried out over the Mwepu tenement mainly in the eastern part of the tenement (Karavia East/Niamumenda prospects). 3D inversion EM data were sourced from a neighbouring mining company (Kalumines). All these data were integrated and interpreted to provide detailed structural and geological information as well as assisting in the identification of drill targets. • Geological mapping was conducted in 2018 and 2019. Mapping results outlined the presence of the geologically prospective rock units (Kansuki and Mines (R2) Subgroup) that are the main host rock to the Cu-Co mineralization. These units are in the core of a steeply dipping anticline striking NW-SE. Younger lithologies were also noted from the Nguba and Kundelungu Formations. • Surface geochemistry (Soil sampling) on 200m by 200m grid and a 200m by 100m grid was completed in 2018, which identified copper and cobalt anomalous zones within the tenement.
Further work	• Further exploration activities have been completed comprising infill drilling to improve confidence levels of the Mineral Resource. • Further work, including geotechnical drilling to assess pit wall characteristics for mine planning and studies to evaluate economic viability.

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
Database integrity	• The MMG Exploration database systems are SQL server and Geobank® management software. All geological and analytical data are managed in MMG's Corporate Geoscience Database. GIS data are stored in secure shared folders on the Lubumbashi server. • All data capture via logging profiles having strong internal validation criteria. The technician/geologist conducts first validation steps by checking intervals, description and accuracy of records in their field laptop computers. • Validation rules are predefined in each of the database tables. Only valid codes get imported into the database. • The sampling and geochemical data are stored in a local version of SQL database that gets replicated to a similar version on the Head Office server with daily, weekly and monthly backups. • A data validation process conducted prior to estimation consisted of: o Examining the sample assay, collar survey, downhole survey and geology data to ensure that the data are complete for all of the drillholes. o Examining the desurveyed data in three dimensions to check for spatial errors.

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
	○ Assay data is assessed to ensure results are within expected ranges, including checks for acid soluble values greater than the corresponding total assay value. ○ Checks for "FROM-TO" errors, to ensure that the sample data did not overlap one another or that there were no unexplained gaps between samples. ○ Checks for excessive mineralised sample lengths. ○ Checks for unsampled drillholes.
Site visits	• The Competent Person visited the site in July 2022 where he inspected the geology exposed in the historical informal open-pit workings and inspected drillholes at the MMG core yard in Lubumbashi.
Geological interpretation	• There is a moderate to high degree of confidence in the lithological model and geological setting. • Grade shells have been constructed sub-vertically, in close association with the favourable dolomitic horizons and iron alteration zones. Mineralisation is not strata bound but it is sub-parallel to the stratigraphy. • A 0.4% total copper threshold was used for the copper grade shells and a 0.08% total cobalt threshold was used for the cobalt grade shells. These thresholds allowed for continuity of mineralisation from one drilling section to the next. • An alternative interpretation for the third copper mineralised fracture may exist, however more exploration would need to be carried out to gain better understanding in this area.
Dimensions	• Strike length is approximately 1,055m. • The modelled copper mineralisation is between approximately 10m and 70m wide. • Mineralisation generally occurs from 10m to 40m below surface along most of the strike length, with it outcropping in some locations. The mineralisation extends from 80m to 220m below surface.
Estimation and modelling techniques	• A 0.4% total copper threshold was used for the copper grade shells and a 0.08% total cobalt threshold was used for the cobalt grade shells. • Grade estimation was completed using ordinary kriging for total copper and cobalt and inverse distance weighting for Ca, Mg, Mn, S and acid soluble ratios using Datamine RM software. Data were composited to 1m. • Top cuts were applied to statistical outliers where necessary. • The wireframe models were filled within a rotated block model (320° about Z), with parent cells of 5 mX by 20 mY by 10 mZ. The parent cells were split to sub-cells to a minimum of 1 mX by 1 mY by 1 mZ. The blocks were rotated to align with the mineralisation trend. The optimum block size was determined using a kriging neighbourhood analysis (KNA). • A minimum of 10 and a maximum of 20 composites were found to be optimal for estimation through KNA. • Search distances of 90% of the variogram ranges were used for the estimation.

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
	• A similar neighbourhood was used in the estimation of all grade attributes, except for the estimation of acid soluble to total ratios due to lesser data. • Each lithological and grade shell wireframe was filled and coded for zonal estimation of TCu, TCo, Ca, Mg, Mn and S. • Calcium and magnesium showed good correlation with each other. Thus, Ca and Mg were estimated using the same domains. Acid soluble copper showed good correlation to the total copper assay. The oxidation of rocks has been observed to be along mineralisation fractures, and hence the spatial overlap between the copper mineralisation wireframe and the acid soluble wireframe. Total cobalt and cobalt soluble assays also showed good correlation with one another. The acid soluble copper estimates were controlled by domains based on the acid solubility and copper domain wireframe. The acid solubility wireframe correlated fairly well with the weathering wireframe. The acid soluble cobalt estimates were controlled by cobalt domain wireframe. • The rest of the variables did not show good correlation with each other and were estimated independently. • A soft boundary was used in the estimation of the high-grade domain where composites located up to 1 m outside its boundary were used in the estimation. All the other estimates used hard boundaries within relevant wireframe boundaries. • A waste model was created that covered an area to 200m from the mineralisation to enable pit planning. • No SMU was considered • The block model grade was compared to drillhole data visually, statistically and by comparing average grades of the drillhole data and model in 50m slices through the deposit. • No reconciliation data are available from the informal mining.
Moisture	• Estimated tonnes are on a dry basis.
Cut-off parameters	• The Oxide Mineral Resource has been reported above an acid soluble copper cut-off grade of 0.75% and an acid soluble to total copper ratio greater than or equal to 0.5. • The transitional and mixed ore (TMO) Mineral Resource has been reported above a total copper cut-off grade of 1.0% and an acid soluble to total copper ratio between 0.2 and 0.5. • The sulphide Mineral Resource has been reported above a total copper cut-off grade of 1.0% and an acid soluble to total copper ratio of less than 0.2. • The cobalt resource (mineralisation outside the copper zones) was reported at a cut-off grade of 0.3% for Oxide-TMO and 0.2% Co for Sulphide. • The reported Mineral Resources have been constrained within a US$4.05/lb Cu and US$30.3/lb Co Whittle optimised pit shell. The reported cut-off grade and the pit-shell price assumptions are in line with MMG's policy for reporting of Mineral Resources based on reasonable prospects for eventual economic extraction.

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
Mining factors or assumptions	• The mining method is assumed to be open pit with trucks and excavators
Metallurgical factors or assumptions	• At this stage of project development, metallurgical recovery assumptions are based on Kinsevere Expansion Project (KEP) recoveries. • As such, the criteria impacting the resource cut-off grades and reportable pit shell inputs are based on the proposed KEP flowsheet and infrastructure upgrades. The upgraded flowsheet will consist of the following changes: ○ - Oxide pre-flotation circuit and leach tank modifications 2.3mtpa ○ - Oxide leach upgrades to convert to reductive leach conditions ○ -Sulphide Concentrator 2.2mtpa capacity ○ -Roaster circuit including off-gas cleaning, acid plant and concentrate storage ○ -Cobalt Recovery circuit to produce high grade Cobalt hydroxide ○ -SX plant modifications.
Environmental factors or assumptions	• Environmental factors include increased land surface disturbance and the required rehabilitation for this site, including final pit excavation and waste rock storage. All ore piles are expected to be transported to Kinsevere for treatment.
Bulk density	• Bulk density measurements were undertaken on each hole within specific lithological units and on mineralised intersections. • Samples were dipped in molten wax. • In-situ bulk density values were assigned to the block model based on stratigraphy and weathering.
Classification	• The model was classified as Indicated and Inferred where informed by a grid of mineralised intersections. • Indicated Mineral Resources were within a grid spacing of 40m and extrapolated to a maximum of 20 m from the nearest drillhole. • Inferred Mineral Resources were within a grid spacing of 100m extrapolated to a maximum of 50 m from the nearest drillhole. • Mineralisation outside the modelled grade shells was not classified as Mineral Resource. • No Measured Mineral Resources were reported due to uncertain grade continuity.
Audits or reviews	• No external audits or reviews of this Mineral Resource estimate have been undertaken, aside from checks by the Competent Person.
Discussion of relative accuracy/ confidence	• The Indicated Mineral Resources are informed by a drillhole grid of 40 m spacing. The Inferred Mineral Resources are informed by drilling and extrapolation is minimal. Mineral Resources informed by sparse drilling are considered to be low confidence estimates that may change significantly with additional data. It cannot be assumed that all or part of an Inferred Mineral Resource will necessarily be upgraded to an Indicated Mineral Resource as a result of continued exploration. • Inferred Mineral Resources are not suitable for detailed technical and economic evaluation.

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
	• Although block model estimates have been carried out, local estimates are likely to be inaccurate for Inferred Mineral Resources.

8.2.3 Statement of Compliance with JORC Code Reporting Criteria and Consent to Release

This Mineral Resource statement has been compiled in accordance with the guidelines defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("2012 JORC Code").

8.2.3.1 Competent Person Statement

I, Jeremy Charles Witley, confirm that I am the Competent Person for the Mwepu Mineral Resource section of this Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having five years' experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Fellow of The Geological Society of South Africa (Membership No. 60286) and I am a Registered Professional Natural Scientist (Geological Science) with the South African Council for Natural Scientific Professions (SACNASP) – Reg No 400181/05.
- I have reviewed the relevant Mwepu Mineral Resource section of this Report to which this Consent Statement applies.

I am a full-time employee of The MSA Group (Pty) Ltd.

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Mwepu Mineral Resource section of this Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in the supporting documentation relating to the Mwepu Mineral Resources.

8.2.3.2 Competent Person Consent

Pursuant to the requirements Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

With respect to the sections of this report for which I am responsible – the Mwepu Mineral Resources - I consent to the release of the 2022 Mineral Resources and Ore Reserves Statement as at 30 June 2022 Executive Summary and Technical Appendix Report and this Consent Statement by the directors of MMG Limited:

This signature was scanned for the exclusive use in this document – the *MMG Mineral Resource and Ore Reserve Statement as at 30 June 2022* – with the author's approval. Any other use is not authorised.

Date: 24/10/2022

Jeremy Charles Witley, BSc Hons (Mining Geology), MSc (Eng), Pr. Sci. Nat. (400181/05) FGSSA (60286)

This signature was scanned for the exclusive use in this document – the *MMG Mineral Resource and Ore Reserve Statement as at 30 June 2022* – with the author's approval. Any other use is not authorised.

Wony Diergaardt,
Johannesburg North

Signature of Witness:

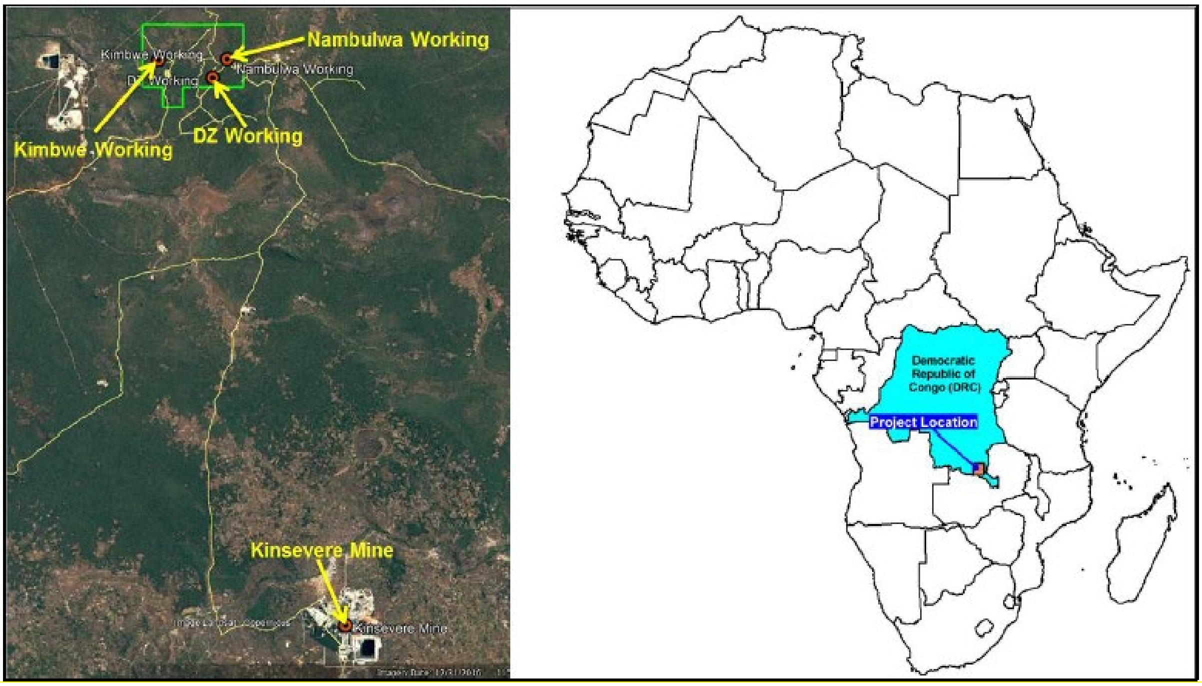
Witness Name and Residence: (e.g. town/suburb)

9 NAMBULWA / DZ

9.1 Introduction and Setting

The Nambulwa and Diazenza (DZ) Projects are located on the license PE539 in Democratic Republic of Congo, DRC. The tenement was acquired by MMG as part of the Anvil Mining acquisition in 2012. From the Kinsevere copper (Cu) mine, the Projects are located some 30km to the NNW (Figure 9-1).

Figure 9-1 Nambulwa and DZ project location



MMG begun exploring tenement PE539 in 2014 with regional to semi-regional exploration work including geological mapping, surface geochemistry, airborne geophysical survey (magnetics, radiometrics, and EM).

On 16 September 2022, armed forces who claimed that the government-owned mining company Gécamines has signed a research contract for the area with a third party even though MMG has a registered interest over the lease. MMG's employees and contractors were evacuated from the site on 23 September 2022. With the support of local authorities, MMG people were able to return to the site and continue work from 28 September 2022, however the armed forces remain at the site.

MMG continues to make formal requests to both Gécamines and the DRC Ministry of Mines for Gécamines to withdraw the new agreements with third parties, and to remove the armed forces and third parties from the sites, in order for MMG to continue its works. Gécamines has purported to suspend, or allege the breach of, agreements held by MMG on the Sokoroshe 2, Nambulwa and Mwepu sites that MMG contests.

9.2 Mineral Resources – Nambulwa / DZ

9.2.1 Results

The 2022 Nambulwa/DZ Mineral Resources are summarised in Table 27. There are no Ore Reserves for Nambulwa/DZ deposits.

Table 27 2022 Nambulwa/DZ Mineral Resources tonnage and grade (as at 30 June 2022)

Nambulwa and DZ Mineral Resources

					Contained Metal		
Nambulwa Oxide Copper[2]	**Tonnes (Mt)**	**Copper (% Cu)**	**Copper (AS[1] % Cu)**	**Cobalt (% Co)**	**Copper (kt)**	**Copper AS (kt)**	**Cobalt (kt)**
Measured	-	-	-	-	-	-	-
Indicated	1.1	2.2	2.0	0.1	24	22	1.2
Inferred	0.10	1.9	1.6	0.1	1.8	1.6	0.1
Total	**1.2**	**2.1**	**1.9**	**0.1**	**25**	**23**	**1.3**
Nambulwa Transition Mixed Ore (TMO) Copper[3]							
Measured	-	-	-	-	-	-	-
Indicated	0.02	3.3	1.3	0.18	0.55	0.22	0.03
Inferred	-	-	-	-	-	-	-
Total	**0.02**	**3.3**	**1.3**	**0.18**	**0.55**	**0.22**	**0.03**
Nambulwa Oxide-TMO Cobalt[4]							
Measured	-	-	-	-	-	-	-
Indicated	0.17	0.14	0.11	0.27	0.23	0.18	0.46
Inferred	-	-	-	-	-	-	-
Total	**0.17**	**0.14**	**0.11**	**0.27**	**0.23**	**0.18**	**0.46**
DZ Oxide Copper[2]							
Measured	-	-	-	-	-	-	-
Indicated	0.94	1.8	1.6	0.13	17	15	1.2
Inferred	0.04	1.9	1.6	0.12	0.80	0.68	0.05
Total	**0.98**	**1.8**	**1.6**	**0.13**	**18**	**16**	**1.2**
DZ Oxide-TMO Cobalt[4]							
Measured	-	-	-	-	-	-	-
Indicated	0.33	0.22	0.15	0.27	0.73	0.49	0.88
Inferred	0.01	0.14	0.08	0.25	0.01	0.004	0.01
Total	**0.33**	**0.22**	**0.15**	**0.27**	**0.74**	**0.50**	**0.89**
Combined Total	**2.7**	**7.6**	**5.1**	**1.0**	**45**	**40**	**3.9**

[1] AS stands for Acid Soluble

[2] 0.6% CuAS cut-off grade

[3] 0.8% Cu cut-off grade

[4] 0.2% Co cut-off grade

All Mineral Resources except stockpiles are contained within a US$4.04/lb Cu and US$30.30/lb Co pit shell

Contained metal does not imply recoverable metal.

Figures are rounded according to JORC Code guidelines and may show apparent addition errors.

9.2.2 Mineral Resources JORC 2012 Assessment and Reporting Criteria

The following information provided in Table 28 complies with the 2012 JORC Code requirements specified by "Table-1 Section 1-3" of the Code.

Table 28 JORC 2012 Code Table 1 Assessment and Reporting Criteria for Nambulwa/DZ Mineral Resources 2022

Section 1 Sampling Techniques and Data	
Criteria	**Explanation**
Sampling techniques	• The Mineral Resources uses a combination of reverse circulation (RC) and diamond drilling (DD) to inform the estimates. At DZ, aircore drilling was used to help define near surface Cu-oxide but the data from aircore drillholes were not used in estimation. • Mineralised zones within the drill core were identified based on combined parameters, including lithological and alteration logging, mineralogical logging and systematic spot pXRF readings. DD core was sampled nominally at 1m intervals within mineralised zones while unmineralised zones were sampled at 2m or 4m intervals. Sampling was carried out by longitudinally cutting PQ and HQ drill core using an Almonte automatic diamond saw and sampling half-core, with half-core retained for future reference. PQ drill core was quartered and sampled. Three-quarters of the core was retained for future reference. • RC drill cuttings were collected in 1m bulk samples from a rig mounted cyclone. Lithological and mineralogical logging, supported by systematic spot pXRF readings, were used to identify mineralised and unmineralised zones in the RC chips. Samples from mineralised zones were riffle split every 1m to obtain a representative (~2.5kg) sample. Samples from unmineralised zones were riffle split and composited to 2m intervals. Wet samples were dried in ambient air before splitting and compositing. • Air core (AC) drill cuttings were collected in 1m bulk samples from a rig mounted cyclone. Samples from zones of mineralisation were riffle split to obtain a representative (~2.5kg sample). Samples from visually unmineralised, lithologically similar zones were riffle split and composited to 3m sample intervals (~2.5kg weight). Wet samples were dried in ambient air before splitting and compositing. • Overall, 54% of the samples were less than 2m, with mineralised samples taken at nominal 1m intervals. • Samples were crushed, split and pulverised (>85% passing 75 µm) at an onsite MMG laboratory at the MMG core yard facility in Lubumbashi. 100 grams of pulp material was sent to the SANAS accredited ALS Laboratories in Johannesburg. • The sample types, nature, quality and sample preparation techniques are considered appropriate for the nature of mineralisation within the Project (sediment hosted base metal mineralisation) by the Competent Person.
Drilling techniques	• DD: PQ and HQ sizes, with triple tube core barrel to maximise recovery. At the end of each drilling run the core was marked with an orientation mark by using a REFLEX ACE tool. An orientation line was then drawn along the axis of the core if two consecutive orientations marks could be aligned by docking core pieces. • AC drilling: A blade bit was used for drilling a 3.23-inch (82mm) hole. The cyclone was manually cleaned at the start of each shift, after any wet samples, and after

Section 1 Sampling Techniques and Data	
Criteria	**Explanation**
	each hole. Compressed air from the drilling machine was used to clean/blow out material from the AC rods, hoses, and cyclone after each rod. • RC drilling: A hammer bit was used for drilling a 5.25-inch (133mm) diameter hole. The cyclone was manually cleaned at the start of each shift, after any wet samples, and after each hole. Compressed air from the drilling machine was used to clean/blow out material from the RC rods, hoses, and cyclone after each rod.
Drill sample recovery	• Overall DD core recovery averaged 83% across the Project area. As expected, the recovery dropped in unconsolidated/highly weathered ground. Above 50m, core recovery averaged 85%, and below 100m, core recovery averaged 89%. • Actual versus recovered drilling lengths were captured by the driller and an on-site rig technician using a tape measure. Measured accuracy was to 1cm. The core recoveries were calculated during the database exports. • Sample recovery during diamond drilling was maximised using the following methods: o Short drill runs (~50cm) o Using drilling additives, muds and chemicals to improve broken ground conditions. o Using the triple tube core barrels. o Reducing water pressure to prevent washout of friable material. • Drilling rates varied depending on the actual and forecast ground conditions • Core loss was recorded through the core and assigned to intersections where visible loss occurred. Cavities were noted. • Bias due to core loss has not been determined. • RC and AC cuttings recovery was measured by weighing each 1m sample bag immediately following collection from the cyclone. • Sample returns for RC and AC drilling have been calculated at 62% and 63% respectively. • Sample recovery during RC drilling was maximized using the following methods: o Adjusting air pressures to the prevailing ground condition. o Using new hammer bits and replacing when showing signs of wear.
Logging	• DD core, RC chips and AC chips have been geologically logged and entered into the MMG database (Geobank®). The level of detail supports the estimation of Mineral Resources. Additional geotechnical logging is required for further studies of the deposit. • Qualitative logging includes lithology, mineralisation type, oxidation type, weathering type, colour and alteration types. Quantitative logging includes mineralisation mineral percentage, alteration mineral percentage and in the case of core, RQD and structural data have been recorded. • All the core and chip samples were photographed both wet and dry. • 100% of core and chips have been logged with the above information.

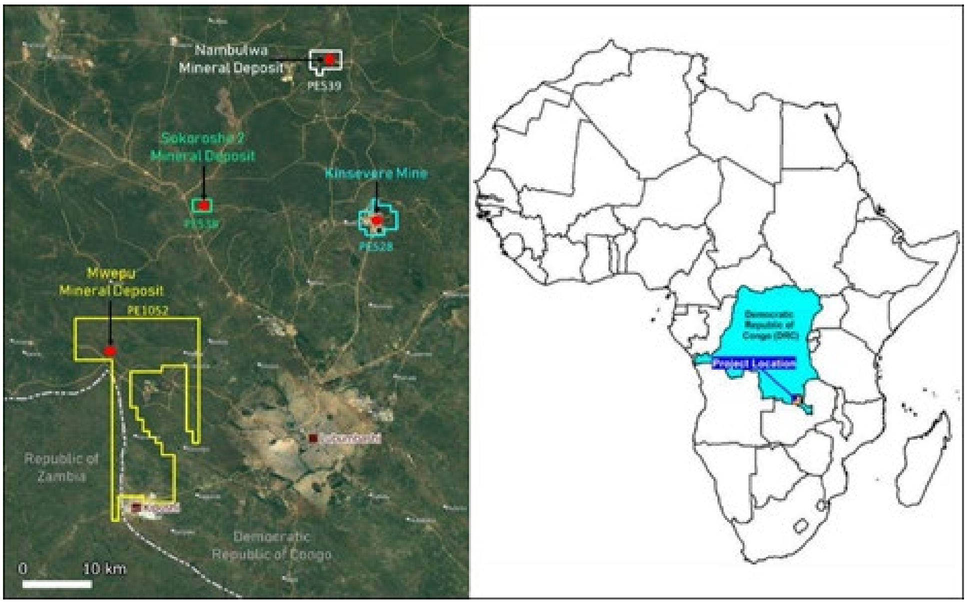
Section 1 Sampling Techniques and Data	
Criteria	**Explanation**
Sub-sampling techniques and sample preparation	• DD core was split in half longitudinally (HQ size) or quartered (PQ size) using an Almonte automatic diamond saw. • Sample lengths were cut as close to nominal 1m intervals as possible while also respecting geological contacts. Samples were generally ~2.5kg in weight. • RC and AC samples were collected from a cyclone every metre by a trained driller's assistant. If the sample was dry the sample was passed through a riffle splitter and a ~2.5kg split was collected into a pre-numbered calico bag. Residual material was sampled and sieved for collection into chip trays for logging and the remainder returned to the larger poly-weave bag (bulk reject). The splitter was cleaned using compressed air or a clean brush and tapped using a rubber mallet. If the sample was wet, the sample was air dried before being split according to the above procedure. • For RC and AC methods, field duplicates were inserted at a rate of approximately 5% to ensure sampling precision was measured. • Samples from individual drillholes were sent in a single dispatch to the MMG laboratory at the MMG core yard facility in Lubumbashi. • Samples were received, recorded on the sample sheet, weighed, and dried at 105°C for 4 to 8 hours (or more) depending on dampness at the sample preparation laboratory. • Samples were crushed and homogenised in a jaw crusher to >70% passing 2mm. The jaw crusher was cleaned with a barren quartz blank after every crushed sample. • The sample size was reduced to 1000g in a riffle splitter and pulverised in an LM2 pulveriser to >85% passing 75µm. QC grind checks were carried out using wet sieving at 75µm on every 1 in 10 samples. • 100 grams of pulp material were sent to the SANAS accredited ALS Laboratories in Johannesburg. • Crush and pulp duplicates were submitted for QAQC purposes. • Certified reference material was also inserted and submitted to ALS for analysis at a rate of 1 of each high, medium, and low copper grade per 30 samples. • The sample size is appropriate for the grain size and distribution of the minerals of interest.
Quality of assay data and laboratory tests	• All samples were sent to ALS Chemex Laboratory in Johannesburg • Samples were analysed using a 4-acid digest with ICP MS finish. 48 elements were analysed in total. • Acid soluble copper assays were only performed when the total copper assay was greater than 1,000 ppm. • ~15% QAQC samples were incorporated, including blanks, duplicates (field, crush, and pulp) and certified reference material per sample analysis batch. • QAQC data has been interrogated with no significant biases or precision issues.

Section 1 Sampling Techniques and Data	
Criteria	**Explanation**
	• No geophysical tools, spectrometers, or portable XRF instruments have been used for estimation purposes.
Verification of sampling and assaying	• Significant intersections have been reviewed by competent MMG employees. • No twin drilling was completed. • Primary data is stored in a Geobank® database, which is maintained according to MMG database protocols. Data is logged, entered and verified in the process of data management. Database is stored on a MMG server and routinely backed up. • No adjustment has been made to assay data.
Location of data points	• Planned collar positions for both diamond drilling and RC drilling were located using handheld GPS devices to ±5m accuracy. • Post drilling, actual collar positions were surveyed using DGPS (Geomax Zenith 25 Pro and Topcon Hiper II) and are of high accuracy. • Grid system is in WGS84/UTM35S • Topographic control was by a detailed aerial drone survey. • The TN14 GYROCOMPASS™ was used to align the drill rig to the correct azimuth and dip angles. • Downhole surveys were done using the REFLEX EZ-TRAC survey instrument. Downhole surveys were not carried out on RC & AC drillholes.
Data spacing and distribution	• 88 drillholes were completed in the Mineral Resource area at Nambulwa (59 DD and 29 RC). • At DZ, 36 DD, 81 AC and 42 RC drillholes were completed in the Mineral Resource area. • At Nambulwa, the drillholes were drilled on northeast oriented sections approximately 25m to 50m apart and there are between one and three holes approximately 25m apart on each section. • At DZ, the drillholes were drilled on northeast oriented sections approximately 25 m apart in the mineralised area and 50m to 100m apart in the barren areas. • 2m or 4m composites were taken in zones of no visual mineralisation (3 m composites for AC drilling) • Nominal 1m samples were taken in zones of mineralisation. • No other sample compositing has occurred.
Orientation of data in relation to geological structure	• DD and RC drillholes were predominantly drilled at inclinations of between 45° and 60° to the northeast at both Nambulwa and DZ to intersect generally steeply dipping mineralisation. Drilling azimuths were as close as practical to orthogonal to the mineralised trend. The AC drillholes were drilled vertically. • In the view of the Competent Person, no bias has been introduced by the drilling direction for the RC and DD holes, however the vertical dip of AC drilling renders these holes unsuitable for Mineral Resource estimation.

Section 1 Sampling Techniques and Data	
Criteria	**Explanation**
Sample security	- Samples were transported from the field and delivered to the MMG sample processing facility in Lubumbashi for cutting and preparation. Polyethylene foam, tarpaulins, and cargo nets were used to secure the load to the pick-up tray and to avoid possible shifting of core during transport. - RC chip sampling was conducted in the field. Chip samples were packed in labelled plastic bags along with a labelled plastic ID tag. - The plastic bags were tied with cable ties to secure the sample and to prevent contamination. - A set of 15 plastic sample bags were packed into labelled poly-weave bags, ready to be shipped from the field to the sample preparation laboratory in Lubumbashi. - Field packing documents and sample sheets were prepared and sent together with the core trays and poly-weave bags to the sample preparation laboratory in Lubumbashi. - After sample preparation, bar-coded envelopes of 100-200g of pulp for each sample were inserted into boxes of ~40 envelopes each, labelled with dispatch ID and laboratory destination to be sent by DHL courier to ALS Chemex in Johannesburg. - Two sets of duplicate pulps of 100-200g were inserted into labelled boxes of ~40 envelopes each to be stored on-site in storage containers. - The shipment of pulps from Lubumbashi to ALS laboratories was done using DHL Courier services with waybill number for tracking. - The Lubumbashi sample preparation laboratory utilizes the ALS-Chemex LIM System installed at Kinsevere mine site, generating a unique lab workorder for each batch sample in the analytical chain.
Audit and reviews	- No external audits or reviews of sampling techniques and data have been conducted. - Data that informed the Mineral Resource model has been reviewed by the previous Competent Person. No significant issues were identified.

Section 2 Reporting of Exploration Results	
Criteria	**Status**
Mineral tenement and land tenure status	- The Nambulwa and DZ Projects are located within lease PE539 (100% Gécamines) in the DRC. The lease was acquired by MMG as part of the Kinsevere Amodiation agreement with Gécamines. The tenement is valid through to April 3, 2024. - On 16 September 2022 the site was occupied by armed forces who claimed that the government-owned mining company Gécamines has signed a research contract for the area with a third party even though MMG has a registered interest over the lease. MMG's employees and contractors were evacuated from the site on 23 September 2022. With the support of local authorities, MMG people were able to return to the site and continue work from 28 September 2022, however the armed

Section 2 Reporting of Exploration Results	
Criteria	**Status**
	forces remain at the site. On 21 October, MMG filed arbitral proceedings against La Générale des Carrières et des Mines S.A. (Gécamines) before the International Chamber of Commerce.
Exploration done by other parties	• Union Miniere (UMHK) explored the Nambulwa Project during the 1920s. UMHK conducted trenching, pitting and tunnelling, mainly at Nambulwa Main. • Gécamines explored the Nambulwa Project during the 1990s. Work completed included mapping, pitting, and limited drilling at Nambulwa Main. • Anvil Mining explored the Nambulwa Project between September and December 2007 and was the first company to effectively define a resource. Anvil's initial phase of exploration included geological mapping, termite mound sampling, AC drilling (11,830m), RC drilling (6,268m), and DD drilling (668m) focussed on PE539 and the surrounding tenements. An unclassified resource of 1.1Mt of ore @ 3.3% Cu for 35,000 t of copper metal was estimated for Nambulwa Main.
Geology	• Sedimentary hosted copper and cobalt oxide deposits. • Mineralisation is hosted by the Neoproterozoic Katanga Supergroup within R2 and R1 Subgroups. • Copper mineralisation mainly occurs in oxide form (malachite) in vugs, fractures and as mineral replacement. Chalcocite and minor bornite are present in veins and as fine-grained disseminations within shaley host rocks. • Cobalt oxides tend to concentrate near surface in Fe-Mn rich clays.
Drill hole information	• Not applicable
Data aggregation methods	• Not applicable • No metal equivalents were used in the Mineral Resource estimation.
Relationship between mineralisation width and intercept lengths	• Not applicable • DD and RC drillholes were predominantly drilled with inclinations of between 45° and 60° to intersect generally steeply dipping mineralisation. Drilling azimuths were as close as practical to orthogonal to the mineralised trend. The AC drillholes were drilled vertically.

Section 2 Reporting of Exploration Results	
Criteria	**Status**
Diagrams	
Balanced reporting	• All drill holes and assay results have been considered in the construction of Cu and Co domains for the Nambulwa and DZ Mineral Resource estimates. However, AC hole sample data was not used in estimation.
Other substantive exploration data	• Airborne Geophysics - TEMPEST survey, Airborne EM, magnetics, and radiometric were flown at the end of 2013. 3D inversion of the EM data identified a prominent conductor body over the western, central and eastern section of the Project. • Geological mapping was conducted in 2014 and 2017. Mapping results outlined the presence of the geologically prospective rock units that are the main host rock to the mineralisation. Younger lithologies were also noted from the Nguba and Kundelungu Formations. • Surface geochemistry: Termite mound sampling on 100m by 100m grid was completed in 2014, which effectively identified copper anomalous zones within the tenement. Additional geochemical surveys include 50m by 50m soil sampling was conducted in 2017. • Airborne Geophysics - Xcalibur survey, flown in 2015 • Magnetics – effective at mapping structural and stratigraphic domains • Radiometrics - effective at mapping lithological contrasts and regolith domains. • Ground IP and AMT survey – helped in mapping the conductive and resistive bodies at depth.
Further work	• Further work on Nambulwa and DZ will focus on advancing the project to Pre-feasibility study level. This will include drilling to convert Inferred to Indicated and Measured Mineral Resources, mining design and scheduling, metallurgical testing and analysis along with all other Ore Reserve modifying factors.

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Status**
Database integrity	• The MMG Exploration database systems are SQL server and Geobank® (Micromine) management software. All geological and analytical data are managed in MMG's Corporate Geoscience Database. GIS data are stored in secure shared folders in the Lubumbashi server. • All data capture via Microsoft Excel logging templates. • Multiple data validation steps conducted by the geologist and database team. Validation rules are predefined in each of the database tables. Only valid codes get imported into the database. • The sampling and geochemical data are stored in a local version of SQL database that gets replicated to a similar version on the Head Office server with daily, weekly and monthly backups. • A data validation process conducted prior to estimation consisted of: ○ Examining the sample assay, collar survey, downhole survey and geology data to ensure that the data were complete for all of the drillholes. ○ Examining the desurveyed data in three dimensions to check for spatial errors. ○ Examination of the assay data in order to ascertain whether they are within expected ranges, including checks for acid soluble values greater than the corresponding total assay value. ○ Checks for "FROM-TO" errors, to ensure that the sample data did not overlap one another or that there were no unexplained gaps between samples. ○ Checks for excessive mineralised sample lengths. ○ Checks for unsampled drillholes.
Site visits	• The previous Competent Person visited the Nambulwa and DZ sites in July 2018 and January 2019 and has visited the Kinsevere deposit and several other oxide copper deposits in the Katanga province, which are also similar in style to the Nambulwa and DZ mineral deposit. • The Competent Person visited the site in July 2022 where he inspected the geology exposed in the informal historical open-pit workings at Nambulwa and DZ.
Geological interpretation	• High degree of confidence in the lithological model and geological setting. • Grade shells have been constructed aligned with the stratigraphy, although they can cross cut stratigraphic contacts. • A 0.4% total copper threshold was used for copper grade shells and a 0.1% total cobalt threshold was used for the cobalt grade shells. These thresholds allowed for continuity of mineralisation from one drilling section to the next. • Alternative interpretations of the mineralisation controls exist and there may be a structural control in addition to the stratigraphic control. These are unlikely to significantly affect the total quantity of Mineral Resources. • The grade shells appear to have been offset in places by faulting. Structures trending at a close angle to the mineralisation may occur.
Dimensions	**Nambulwa** • Strike length is approximately 1.1km.

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Status**
	• The modelled copper mineralisation is between approximately 2m and 15m wide. Cobalt mineralisation reached 40m wide. • Mineralisation occurs from surface along most of the strike length. In some areas drilling did not identify mineralisation near surface, despite artisanal mining, and the mineralisation extends downwards from as deep as 60m below surface. • The host rocks are terminated by a low angle fault at depths of between 50m and 150m. • The mineralisation is subvertical over most of the area but flattens to the southeast. **DZ** • Strike length is approximately 500m (adjacent to Nambulwa). • The modelled copper mineralisation is between approximately 5m and 80m wide, reaching a maximum thickness in the centre (bulge area). • Mineralisation occurs from surface along most of the strike length. In some areas drilling did not identify mineralisation near surface. • The mineralisation is subvertical over most of the area, with a bulging shape in the middle of the grade shells.
Estimation and modelling techniques	• A similar estimation strategy was used for both Nambulwa and DZ and is summarised below: • A 0.4% total copper threshold was used for copper grade shells and a 0.1% total cobalt threshold was used for the cobalt grade shells. • Grade estimation was completed using ordinary kriging for total copper and cobalt and inverse distance weighting for density, Ca, Mg and acid soluble ratios using Datamine Studio RM software. Samples were composited to 1 m. • Top cuts were applied to statistical outliers where necessary. • Search distances were based on multiples of the variogram ranges. • The wireframe models were filled with parent cells 5m by 5m by 5m (X,Y,Z). The parent cells were split to sub-cells of a minimum of 1m by 1m by 1m (X,Y,Z). The drillhole spacing is approximately 25m (Nambulwa) or 50m (DZ) on strike and 25m on dip. The small block size was chosen due to the orientation of the grade shells rather than on a geostatistical basis. • Each lithological and grade shell wireframe was filled and coded for zonal estimation so that the model contains lithological codes and grade shell codes. The coding included a code for the low Ca volume that represents the base of deep weathering. • Ca and Mg were estimated by lithology separately within volumes defining low, moderate and high levels of Ca and Mg. • In-situ bulk dry density was estimated within each lithology and below and above the low Ca volume, which defines the deep weathering. • A waste model was created that covered the area containing any elevated copper and/or cobalt grades. • No SMU was considered

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Status**
	• Bivariate analysis was carried out to determine relationships between the attributes of interest. All elements were estimated individually there being no discernible relationship between copper and cobalt and acid soluble values. • Hard boundaries were used so that estimation was within grade shells. • The block model grade was compared to drillhole data visually and statistically. • No reconciliation data were available. • The latest estimate compares well with the previous estimate by MSA and wherever differences occur, significant deviations are justified. The block model grade was compared to drillhole data visually, statistically and by comparing average grades of the drillhole data and model in 50m slices through the deposit. • No formal mining occurred and therefore, no reconciliation data is available.
Moisture	• Estimated tonnes are on a dry basis with density measurements being in-situ dry bulk densities.
Cut-off parameters	• The Oxide Mineral Resource has been reported above an acid soluble copper cut-off grade of 0.6% and an acid soluble to total copper ratio greater than or equal to 0.5. • The transitional and mixed ore (TMO) Mineral Resource has been reported above a total copper cut-off grade of 0.8% and an acid soluble to total copper ratio between 0.2 and 0.5. • The sulphide Mineral Resource has been reported above a total copper cut-off grade of 0.8% and an acid soluble to total copper ratio of less than 0.2. • The cobalt resource (mineralisation outside the copper zones) was reported at a cut-off grade of 0.2% for Oxide-TMO and 0.2% Co for Sulphide. • The reported Mineral Resources have been constrained within a US$4.05/lb Cu and US$30.3/lb Co Whittle optimised pit shell. The reported cut-off grade and the pit-shell price assumptions are in line with MMG's policy for reporting of Mineral Resources based on reasonable prospects for eventual economic extraction.
Mining factors or assumptions	• The mining method is assumed to be open pit with trucks and excavators.
Metallurgical factors or assumptions	• At this stage of project development, metallurgical recovery assumptions are based on Kinsevere Expansion Project (KEP) recoveries. • As such, the criteria impacting the resource cut-off grades and reportable pit shell inputs are based on the proposed KEP flowsheet and infrastructure upgrades. The upgraded flowsheet will consist of the following changes: ○ - Oxide pre-flotation circuit and leach tank modifications 2.3mtpa ○ - Oxide leach upgrades to convert to reductive leach conditions ○ -Sulphide Concentrator 2.2mtpa capacity ○ -Roaster circuit including off-gas cleaning, acid plant and concentrate storage ○ -Cobalt Recovery circuit to produce high grade Cobalt hydroxide ○ -SX plant modifications

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Status**
Environmental factors or assumptions	• Environmental factors include increased land surface disturbance and the required rehabilitation for this site, including final pit excavation and waste rock storage. All ore piles are expected to be transported to Kinsevere for treatment.
Bulk density	• Bulk density measurements have been undertaken using weight in air and weight in water. The samples measurement also included wax immersion to prevent over estimation due to the porous nature of oxide samples. Samples were oven dried prior to measurement. • Density measurements were undertaken on each hole within specific lithological units and on mineralised intersections. • In-situ bulk density estimated into each block using inverse distance squared,
Classification	• The model was classified as Indicated and Inferred where informed by a grid of mineralised intersections. • Indicated Mineral Resources were extrapolated a maximum of 25 m from the nearest drillhole. • Inferred Mineral Resources were extrapolated a maximum of 60 m from the nearest drillhole. • Where an unmineralised intersection occurs within the drillhole grid, the Mineral Resource was constrained to a distance halfway between the nearest mineralised intersection and the unmineralised intersection. • The Mineral Resource was constrained above the interpreted basal fault at Nambulwa. • Mineralisation outside the modelled grade shells was not classified as Mineral Resource. • No Measured Mineral Resources were reported due to uncertain grade continuity.
Audits or reviews	• No external audits or reviews of this Mineral Resource estimate have been undertaken, aside from checks by the Competent Person.
Discussion of relative accuracy/ confidence	• The Indicated Mineral Resources are informed by drilling spaced 25 m along strike. The Inferred Mineral Resources are informed by drilling and extrapolation is minimal. Mineral Resources informed by sparse drilling are considered to be low confidence estimates that may change significantly with additional data. It cannot be assumed that all or part of an Inferred Mineral Resource will necessarily be upgraded to an Indicated Mineral Resource as a result of continued exploration. • Inferred Mineral Resources are not suitable for detailed technical and economic evaluation. • Although block model estimates have been carried out, local estimates are likely to be inaccurate.

9.2.3 Statement of Compliance with JORC Code Reporting Criteria and Consent to Release

This Mineral Resource statement has been compiled in accordance with the guidelines defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("2012 JORC Code").

9.2.3.1 Competent Person Statement

I, Jeremy Charles Witley, confirm that I am the Competent Person for the Nambulwa-DZ Mineral Resource section of this Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having five years' experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Fellow of The Geological Society of South Africa (Membership No. 60286) and I am a Registered Professional Natural Scientist (Geological Science) with the South African Council for Natural Scientific Professions (SACNASP) – Reg No 400181/05.
- I have reviewed the relevant Nambulwa-DZ Mineral Resource section of this Report to which this Consent Statement applies.

I am a full-time employee of The MSA Group (Pty) Ltd.

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Nambulwa-DZ Mineral Resource section of this Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in the supporting documentation relating to the Nambulwa-DZ Mineral Resources.

9.2.3.2 Competent Person Consent

Pursuant to the requirements Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

With respect to the sections of this report for which I am responsible – the Nambulwa-DZ Mineral Resources - I consent to the release of the 2022 Mineral Resources and Ore Reserves Statement as at 30 June 2022 Executive Summary and Technical Appendix Report and this Consent Statement by the directors of MMG Limited:

This signature was scanned for the exclusive use in this document – the *MMG Mineral Resource and Ore Reserve Statement as at 30 June 2022* – with the author's approval. Any other use is not authorised.

Date: 24/10/2022

Jeremy Charles Witley, BSc Hons (Mining Geology), MSc (Eng), Pr. Sci. Nat. (400181/05) FGSSA (60286)

This signature was scanned for the exclusive use in this document – the *MMG Mineral Resource and Ore Reserve Statement as at 30 June 2022* – with the author's approval. Any other use is not authorised.

Wony Diergaardt,
Johannesburg North

Signature of Witness:

Witness Name and Residence: (e.g. town/suburb)

10 HIGH LAKE

This Mineral Resources remains unchanged since reporting in 2013. This information can be found in the 2013 MMG Mineral Resources and Ore Reserves Statement as at 30 June 2013 Technical Appendix.

11 IZOK LAKE

This Mineral Resources remains unchanged since reporting in 2013. This information can be found in the 2013 MMG Mineral Resources and Ore Reserves Statement as at 30 June 2013 Technical Appendix.