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 2021

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 2021 (Mineral Resources and Ore Reserves Statement).

The key changes to Mineral Resources and Ore Reserves Statement as at 30 June 2021 are:

- The Group's Mineral Resources (contained metal) have decreased for copper (6%), zinc (1%), molybdenum (8%), silver (0.1%) and gold (3%). Lead (0.4%) and cobalt (0.4%) have increased slightly from 2020.

- The Group's Ore Reserves (contained metal) have decreased for copper (5%), zinc (8%), lead (2%), silver (3%), gold (9%) and molybdenum (8%).

For copper metal, the main reasons for changes are depletion at all sites which is partly offset by a small increase in metal price assumption. Reductions at Las Bambas are mostly due to negative impacts of costs and cut off grade adjustments which are only partially offset by positive movements in metal prices. At Dugald River, the change to the geological model of the Inferred copper lens, due to improvements in orebody knowledge, has resulted in a negative variance. Mining and milling depletion accounts for approximately 64% of the total decrease from 2020 Mineral Resources and 68% for Ore Reserves.

For zinc metal, the main reasons for the changes are depletion at all sites which is partially offset by additional tonnes from known lenses at Rosebery and Dugald River. Continuing exploration at both Australian sites has partially replaced depletion over the last 12 months.

Open Pit Oxide Ore Reserves at Kinsevere have been exhausted, with oxide and mixed ore stockpiles remaining in Ore Reserves.

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 8).

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 2021 published on 28 October 2021 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
Gao Xiaoyu
CEO and Executive Director

Hong Kong, 28 October 2021

As at the date of this announcement, the Board comprises eight directors, of which one is an executive director, namely Mr Gao Xiaoyu; four are non-executive directors, namely Mr Guo Wenqing (Chairman), Mr Jiao Jian, Mr Xu Jiqing and Mr Zhang Shuqiang; 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 2021

EXECUTIVE SUMMARY

Mineral Resources and Ore Reserves for MMG have been estimated as at 30 June 2021 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 8, which include the 30 June 2021 and 30 June 2020 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 9.

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 2020 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. Improvements to the geological model at all sites have resulted in both increases and decreases of which none are material. Relatively small decreases at Chalcobamba and Sulfobamba have offset a similar magnitude increase at Ferrobamba. A decrease in the Inferred copper lens at Dugald River has resulted from continuing improvements in orebody knowledge. There are no material changes at Kinsevere or the regional DRC copper deposits. Zinc metal increased slightly after depletion at Rosebery while at Dugald River the net reduction is mostly due to depletion.

Key changes to the Ore Reserves (contained metal) since the 30 June 2020 estimate are mostly related to depletion[1]. Chalcobamba South West zone has been added to the Chalcobamba Ore Reserves at Las Bambas for the first time. Increased costs have driven cut off grades higher at Las Bambas which have had a small negative impact on the results. Illegal artisanal mining at Sulfobamba has been estimated with 19kt of metal removed from the Ore Reserves. All insitu open pit material has been excluded from the Kinsevere Ore Reserve due to the prohibitive cost of low volume mining at the site. At Dugald River, a minor increase (net of depletion) to Ore Reserves has resulted from prior year focus on Reserve Definition drilling uplifting both tonnes and Zn grades.

Pages 10 and 11 provide further discussion of the Mineral Resources and Ore Reserves changes.

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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.

MINERAL RESOURCES[1]

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

	2021								2020							
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	0.4	1.4							0.8	1.9						
Inferred	0.01	1.1							0.1	1.8						
Total	**0.4**	**1.4**							**0.9**	**1.9**						
Ferrobamba Primary Copper																
Measured	410	0.59			2.6	0.05	220		462	0.61			2.6	0.05	229	
Indicated	280	0.70			3.2	0.06	200		264	0.72			3.2	0.07	201	
Inferred	72	0.92			3.9	0.08	140		115	0.61			2.1	0.04	97	
Total	**770**	**0.66**			**3.0**	**0.06**	**210**		**840**	**0.64**			**2.7**	**0.05**	**202**	
Ferrobamba Total	**770**								**841**							
Chalcobamba Oxide Copper																
Indicated	6.5	1.5							5.6	1.4						
Inferred	0.5	1.7							0.5	1.6						
Total	**7.0**	**1.5**							**6.1**	**1.4**						
Chalcobamba Primary Copper																
Measured	120	0.52			1.6	0.02	150		128	0.45			1.3	0.02	161	
Indicated	170	0.70			2.7	0.03	120		206	0.65			2.4	0.03	128	
Inferred	27	0.60			2.5	0.03	140		39	0.61			2.2	0.03	115	
Total	**320**	**0.63**			**2.3**	**0.03**	**130**		**373**	**0.58**			**2.0**	**0.03**	**138**	
Chalcobamba Total	**327**								**379**							
Sulfobamba Primary Copper																
Indicated	80	0.68			4.8	0.02	170		87	0.58			6.4	0.02	119	
Inferred	96	0.58			6.5	0.02	120		102	0.62			5.6	0.02	142	
Total	**180**	**0.63**			**5.7**	**0.02**	**140**		**189**	**0.62**			**5.6**	**0.02**	**142**	
Sulfobamba Total	**180**								**189**							
Oxide Copper Stockpile																
Indicated	13	1.1							12.1	1.2						
Total	**13**	**1.1**							**12.1**	**1.2**						
Sulphide Stockpile																
Measured	26	0.39			1.8		140		8.1	0.40			1.8		135	
Total	**26**	**0.39**			**1.8**		**140**		**8.1**	**0.40**			**1.8**		**135**	
Las Bambas Total	**1,300**								**1,429**							

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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]

	2021								2020							
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	1.2	3.2						0.11	1.5	3.2						0.10
Indicated	5.5	2.7						0.09	6.1	2.8						0.09
Inferred	2.2	2.1						0.07	2.2	2.2						0.07
Total	**8.9**	**2.7**						**0.09**	**9.8**	**2.7**						**0.09**
Transition Mixed Copper Ore																
Measured	0.8	2.0						0.15	0.9	2.1						0.12
Indicated	2.2	2.1						0.12	2.3	2.1						0.08
Inferred	1.1	1.6						0.08	1.1	1.6						0.12
Total	**4.1**	**1.9**						**0.12**	**4.3**	**2.0**						**0.25**
Primary Copper																
Measured	1.5	2.6						0.25	1.5	2.6						0.25
Indicated	19	2.3						0.10	18.7	2.3						0.11
Inferred	9.2	1.7						0.08	9.0	1.8						0.08
Total	**29**	**2.1**						**0.10**	**29.3**	**2.1**						**0.10**
Oxide-TMO Cobalt																
Measured	0.02	0.46						0.31	0.03	0.49						0.29
Indicated	0.16	0.35						0.33	0.18	0.33						0.32
Inferred	1.0	0.23						0.32	0.98	0.23						0.32
Total	**1.2**	**0.25**						**0.32**	**1.2**	**0.3**						**0.32**
Primary Cobalt																
Measured	0.01	0.54						0.24	0.02	0.55						0.20
Indicated	0.15	0.57						0.20	0.15	0.57						0.20
Inferred	0.17	0.33						0.25	0.16	0.34						0.25
Total	**0.34**	**0.44**						**0.22**	**0.34**	**0.45**						**0.22**
Stockpiles																
Measured																
Indicated	16	1.6							15.5	1.6						
Total	**16**	**1.6**							**15.5**	**1.6**						
Kinsevere Total	**59**	**2.0**							**60.4**	**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]

	2021								2020							
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	1.7	2.4						0.35	1.9	2.3						0.33
Inferred	0.02	3.4						0.07								
Total	**1.7**	**2.4**						**0.34**	**1.9**	**2.3**						**0.33**
Transition Mixed Copper Ore																
Measured																
Indicated	0.1	0.9						1.50								
Inferred	0.2	2.5						0.24								
Total	**0.3**	**1.8**						**0.75**								
Primary Copper																
Measured																
Indicated																
Inferred	0.67	1.7						0.58	0.83	1.8						0.51
Total	**0.67**	**1.7**						**0.58**	**0.83**	**1.8**						**0.51**
Oxide Cobalt																
Measured																
Indicated	0.47	0.41						0.56	0.37	0.6						1.03
Inferred	0.10	0.25						0.34								
Total	**0.57**	**0.38**						**0.52**	**0.37**	**0.6**						**1.03**
Primary Cobalt																
Measured																
Indicated	0.012	0.14						0.34								
Inferred	0.004	0.36						0.65	0.10	0.3						0.36
Total	**0.016**	**0.20**						**0.42**								
Total	**3.3**	**1.9**						**0.46**	**3.2**	**1.9**						**0.46**
Nambulwa (100%)																
Oxide Copper																
Measured																
Indicated	1.0	2.2						0.11	1.0	2.3						0.12
Inferred	0.09	1.9						0.07	0.1	1.9						0.07
Total	**1.1**	**2.2**						**0.11**	**1.1**	**2.3**						**0.11**
Oxide Cobalt																
Measured																
Indicated	0.17	0.15						0.27	0.04	0.08						0.40
Inferred																
Total	**0.17**	**0.15**						**0.27**	**0.04**	**0.08**						**0.40**
Total	**1.3**	**2.0**						**0.13**	**1.1**	**2.2**						**0.12**
DZ (100%)																
Oxide Copper																
Measured																
Indicated	0.79	2.0						0.13	0.78	2.0						0.12
Inferred	0.04	2.0						0.13	0.04	2.0						0.13
Total	**0.82**	**2.0**						**0.13**	**0.82**	**2.0**						**0.12**
Oxide Cobalt																
Measured																
Indicated	0.35	0.26						0.27	0.07	0.34						0.39
Inferred	0.01	0.14						0.25	0.00	0.63						0.51
Total	**0.35**	**0.26**						**0.27**	0.07	0.34						0.39
DZ Total	**1.2**	**1.5**						**0.17**	**0.89**	**1.9**						**0.15**

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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]

	2021								2020							
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 (%)**
Mwepu (100%)																
Oxide Copper																
Measured																
Indicated	0.86	2.4						0.18	0.95	2.3						0.17
Inferred	0.57	2.4						0.28	0.63	2.3						0.27
Total	**1.4**	**2.4**						**0.22**	**1.58**	**2.3**						**0.21**
Oxide Cobalt																
Measured																
Indicated	0.10	0.26						0.27	0.08	0.61						0.45
Inferred	0.12	1.5						0.17	0.22	0.44						0.47
Total	**0.22**	**2.4**						**0.18**	**0.30**	**0.49**						**0.46**
Mwepu Total	**1.9**	**1.9**						**0.25**	**1.9**	**2.0**						**0.25**
Dugald River (100%)																
Primary Zinc																
Measured	13		13.1	2.4	80				13.5		13.2	2.3	74			
Indicated	17		11.6	1.4	21				19.8		11.5	1.2	21			
Inferred	36		11.2	0.8	8.7				34.3		11.0	0.8	9			
Total	**66**		**11.7**	**1.3**	**26**				**67.6**		**11.6**	**1.2**	**26**			
Primary Copper																
Inferred	4.5	1.5				0.1			19.2	1.4				0.1		
Total	**4.5**	**1.5**				**0.1**			**19.2**	**1.4**				**0.1**		
Dugald River Total	**70**								**86.8**							
Rosebery (100%)																
Rosebery																
Measured	6.5	0.22	7.7	3.0	135	1.4			6.7	0.19	8.0	3.0	131	1.5		
Indicated	3.1	0.17	6.5	2.3	117	1.2			2.1	0.15	6.6	2.0	98	1.1		
Inferred	7.1	0.21	8.6	2.5	91	1.2			6.7	0.26	9.2	3.0	109	1.5		
Total	**17**	**0.21**	**7.9**	**2.6**	**113**	**1.3**			**15.5**	**0.21**	**8.3**	**2.9**	**117**	**1.4**		
Rosebery Total	**17**								**15.5**							
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**			**14.0**	**2.5**	**3.8**	**0.4**	**84**	**1.3**		
Izok Lake (100%)																
Measured																
Indicated	13	2.4	13	1.4	73	0.18			13.5	2.4	13.3	1.4	73	0.18		
Inferred	1.2	1.5	11	1.3	73	0.21			1.2	1.5	10.5	1.3	73	0.21		
Total	**15**	**2.3**	**13**	**1.4**	**73**	**0.18**			**14.6**	**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

	2021							2020						
Deposit	**Tonnes (Mt)**	**Cu (%)**	**Zn (%)**	**Pb (%)**	**Ag (g/t)**	**Au (g/t)**	**Mo (ppm)**	**Tonnes (Mt)**	**Cu (%)**	**Zn (%)**	**Pb (%)**	**Ag (g/t)**	**Au (g/t)**	**Mo (ppm)**
Las Bambas (62.5%)														
Ferrobamba Primary Copper														
Proved	360	0.61			2.7	0.05	220	422	0.61			2.6	0.05	223
Probable	160	0.77			3.5	0.07	190	166	0.74			3.4	0.07	189
Total	**520**	**0.66**			**2.9**	**0.06**	**210**	**587**	**0.64**			**2.8**	**0.06**	**214**
Chalcobamba Primary Copper														
Proved	83	0.60			1.9	0.02	140	81	0.51			1.6	0.02	156
Probable	140	0.74			2.7	0.03	120	126	0.72			2.8	0.04	123
Total	**220**	**0.69**			**2.4**	**0.03**	**130**	**207**	**0.64**			**2.3**	**0.03**	**136**
Sulfobamba Primary Copper														
Proved														
Probable	56	0.79			5.8	0.03	160	64	0.76			5.5	0.03	163
Total	**56**	**0.79**			**5.8**	**0.03**	**160**	**64**	**0.76**			**5.5**	**0.03**	**163**
Primary Copper Stockpiles														
Proved	26	0.39			1.8		140	8.14	0.40			1.8		135
Total	**26**	**0.39**			**1.8**		**140**	**8.14**	**0.40**			**1.8**		**135**
Las Bambas Total	**820**	**0.67**			**3.0**		**180**	**867**	**0.65**			**2.9**		**191**
Kinsevere (100%)														
Oxide Copper														
Proved	0.0	0.0						0.8	3.5					
Probable	0.0	0.0						1.7	3.2					
Total	**0.0**	**0.0**						**2.4**	**3.3**					
Stockpiles														
Proved														
Probable	7.0	1.6						9.3	2.1					
Total	**7.0**	**1.6**						**9.3**	**2.1**					
Kinsevere Total	**7.0**	**1.6**						**11.8**	**2.3**					
Dugald River (100%)														
Primary Zinc														
Proved	12		11.0	2.1	70			10.9		10.8	2.0	64		
Probable	12		10.1	1.3	18			14.5		10.1	1.2	20		
Total	24		10.6	1.7	44			25.4		10.4	1.5	39		
Dugald River Total	**24**		**10.6**	**1.7**	**44**			**25.4**		**10.4**	**1.5**	**39**		
Rosebery (100%)														
Proved	5.3	0.19	6.4	2.6	120	1.3		6.1	0.18	7.0	2.7	121	1.4	
Probable	0.84	0.18	5.5	2.0	110	1.1		1.1	0.18	6.1	2.0	100	1.1	
Total	**6.1**	**0.19**	**6.3**	**2.5**	**120**	**1.2**		**7.2**	**0.18**	**6.9**	**2.6**	**118**	**1.3**	
Rosebery Total	**6.1**	**0.19**	**6.3**	**2.5**	**120**	**1.2**		**7.2**	**0.18**	**6.9**	**2.6**	**118**	**1.3**	

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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	Neil Colbourne[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	Yao Wu[1]	MAusIMM(CP)	MMG
Kinsevere	Mineral Resources	Samson Malenga[2]	Pr.Sci.Nat.	MMG
Kinsevere	Ore Reserves	Dean Basile	MAusIMM(CP)	Mining One Pty Ltd
Rosebery	Mineral Resources	Anna Lewin	MAusIMM(CP)	MMG
Rosebery	Ore Reserves	Philip Uebergang	MAusIMM	Ground Control Engineering Pty Ltd
Dugald River	Mineral Resources	Richard Bueger	MAIG	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 2021 have changed, since the 30 June 2020 estimate, for several reasons with the most significant changes outlined in this section.

Mineral Resources (contained metal) have decreased for copper (-6%), zinc (-1%), molybdenum (-8%), silver (-0.1%) and gold (-3%). Lead (0.4%) and cobalt (0.4%) have increased slightly from 2020. 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:

- continued drilling and improvements in orebody knowledge specifically at Dugald River and Rosebery. At Rosebery, continued drilling success in the middle and upper mine has further delineated 1.2Mt of additional resource as extensions to previously mined lenses; and

- metal prices, specifically cobalt, has increased the overall contained cobalt metal in the DRC deposits.

Decreases:

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

- depletion at all producing operations;

- removal of 40kt Cu from Sulfobamba deposit at Las Bambas due to illegal mining over the last 5 years;

- negative impacts of costs and cut off grade adjustments have been partially offset by positive movements in metal prices and account for 60% of the variance with the remainder due to improved orebody knowledge and geological modelling has resulted in 156kt metal reduction at Chalcobamba;

- remodelling of the hangingwall copper lens at Dugald River resulted in a decrease to the Inferred Mineral Resource reported in 2020; and

- an increase in costs and cut off grades at Las Bambas.

ORE RESERVES

Ore Reserves as at 30 June (contained metal) have decreased for copper (-5%), zinc (-8%), lead (-2%), silver (-3%), gold (-9%) and molybdenum (-8%).

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

Increases:

- Ore Reserves have increases at Dugald River for lead (4%) and silver (5%) have been realised due to continued drilling for Reserve Definition, which has increased the lead and silver grades, respectively; and
- Chalcobamba South West has been included in the Ore Reserve at Las Bambas for the first time, having contributed 230kt to the 2021 Ore Reserves. This, however, has not offset depletion and other negative impacts.

Decreases:

Decreases in Ore Reserves (metal) for copper (-5%), zinc (-8%), lead (-3%), silver (-3%) and gold (-9%) are due to:

- depletion at all producing operations;
- impact of increased costs on cut-off grade and an estimated 19kt of ore attributed to illegal mining at Sulfobamba;
- a further reduction of copper (-58%) at Kinsevere, due to changes in exclusion of all remaining in-pit material due to high contract mining costs required to recommence mining and exclusion of the black shale material from the stockpiles due to having no suitable blending material available; and
- a further reduction of zinc (-5%) at Dugald River, due to lower modelled grades.

KEY ASSUMPTIONS

PRICES AND EXCHANGE RATES

The following price and foreign exchange assumptions, set according to the relevant MMG Standard as at February 2021, have been applied to all Mineral Resources and Ore Reserves estimates. Price assumptions for all metals have changed from the 2020 Mineral Resources and Ore Reserves statement.

Table 2: 2021 Price (real) and foreign exchange assumptions

	Ore Reserves	Mineral Resources
Cu (US$/lb)	3.28	3.68
Zn (US$/lb)	1.16	1.41
Pb (US$/lb)	0.93	1.13
Au US$/oz	1,512	1,773
Ag US$/oz	18.90	22.17
Mo (US$/lb)	10.08	12.12
Co (US$/lb)	20.16	30.24
USD:CAD	1.30	As per Ore Reserves
AUD:USD	0.75	
USD:PEN	3.23	

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$3.68/lb Cu and US$12.12/lb Mo pit shell.
	Primary copper Ferrobamba		0.18% Cu[2] (average)	
	Primary copper Chalcobamba		0.20% Cu[2] (average)	
	Primary copper Sulfobamba		0.21% Cu[2] (average)	
Kinsevere	Oxide copper & stockpiles	OP	0.6% CuAS[3]	*In-situ* copper Mineral Resources constrained within a US$3.68/lb Cu and US$25.79/lb Co pit shell.
	Transition mixed ore copper (TMO)	OP	0.7% Cu[2]	
	Primary copper	OP	0.7% Cu[2]	
	Oxide TMO Cobalt	OP	0.2% Co[4]	*In-situ* cobalt Mineral Resources constrained within a US$3.68/lb Cu and US$30.24/lb Co pit shell, but exclusive of copper mineralisation.
	Primary cobalt	OP	0.1% Co[4]	
Sokoroshe II	Oxide	OP	0.73% Cu[2]	*In-situ* copper Mineral Resources constrained within a US$3.68/lb Cu and US$30.24/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$3.68/lb Cu and US$30.24/lb Co pit shell, but exclusive of copper mineralisation above cut off.
	TMO Cobalt	OP	0.2% Co[4]	
	Primary cobalt	OP	0.2% Co[4]	
Nambulwa / DZ	Oxide copper	OP	0.76% Cu[2]	*In-situ* copper Mineral Resources constrained within a US$3.68/lb Cu and US$30.24/lb Co pit shell.
	Oxide cobalt	OP	0.2% Co[4]	*In-situ* cobalt Mineral Resources constrained within a US$3.68/lb Cu and US$30.24/lb Co pit shell, but exclusive of copper mineralisation.
Mwepu	Oxide and TMO copper	OP	0.89% Cu[2]	*In-situ* copper Mineral Resources constrained within a US$3.68/lb Cu and US$30.24/lb Co pit shell.
	Oxide cobalt	OP	0.2% Co[4]	*In-situ* cobalt Mineral Resources constrained within a US$3.68/lb Cu and US$30.24/lb Co pit shell, but exclusive of copper mineralisation.
Rosebery	Rosebery (Zn, Cu, Pb, Au, Ag)	UG	A$174/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$142/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 recoveries at Au:75%, Ag:83%, Cu:89%, Pb:81% and Zn:93%.
Izok Lake	Cu, Zn, Pb, Ag, Au	OP	4.0% ZnEq[7]	ZnEq[7] = Zn + (Cu×3.31) + (Pb×1.09) + (Au×1.87) + (Ag×0.033); prices and metal recoveries as per High Lake.

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[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
[7] ZnEq = Zinc equivalent

Table 4 : Ore Reserves cut-off grades

Site	Mineralisation	Mining Method	Cut-Off Value	Comments
Las Bambas	Primary copper Ferrobamba	OP	0.20% Cu[1] (average)[2]	Range based on rock type recovery.
	Primary copper Chalcobamba		0.23% Cu[1] (average)[3]	
	Primary copper Sulfobamba		0.24% Cu[1] (average)[4]	
Kinsevere	Copper oxide	OP	0.6% CuAS[5]	Approximate cut-off grades shown in this table for ex-pit material. Variable cut-off grade based on net value script.
		OP	0.6% CuAS[4]	For existing stockpiles reclaim.
Rosebery	(Zn, Cu, Pb, Au, Ag)	UG	A$174/t NSR[6]	
Dugald River	Primary zinc	UG	A$142/t NSR (average)[6]	

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[1] Cu = Total copper

[2] Range from 0.20 to 0.24% Cu

[3] Range from 0.22 to 0.29% Cu

[4] Range from 0.24 to 0.29% Cu

[5] CuAS = Acid Soluble Copper

[6] 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%					8%
	Lead Concentrate		1.8%	77%	36%	16%		7%
	Copper Concentrate	58%			41%	36%		8%
	Doré[1] (gold and silver)				0.13%	24%		
Dugald River	Zinc Concentrate	–	88%		39%	–		10.5%
	Lead Concentrate	–		66%	47%	–		10.0%
Kinsevere	Copper Cathode	76% (96% CuAS[2])						

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 2021

Technical Appendix

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28 October 2021

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APPROVALS PAGE

	Rex Berthelsen	Head of Geology	28/10/2021
Signature	**Name**	**Position**	**Date**
	Neil Colbourne	Head of Mining	28/10/2021
Signature	**Name**	**Position**	**Date**
	Sam Rodda	General Manager Operations and Technical Excellence	28/10/2021
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 2021 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 2021 Price (real) and foreign exchange assumptions

	Ore Reserves	Mineral Resources
Cu (US$/lb)	3.28	3.68
Zn (US$/lb)	1.16	1.41
Pb (US$/lb)	0.93	1.13
Au US$/oz	1,512	1,773
Ag US$/oz	18.90	22.17
Mo (US$/lb)	10.08	12.12
Co (US$/lb)	20.16	30.24
USD:CAD	1.30	As per Ore Reserves
AUD:USD	0.75	
USD:PEN	3.23	

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	Neil Colbourne[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	Yao Wu[1]	MAusIMM(CP)	MMG
Kinsevere	Mineral Resources	Samson Malenga[2]	Pr.Sci.Nat.	MMG
Kinsevere	Ore Reserves	Dean Basile	MAusIMM(CP)	Mining One Pty Ltd
Rosebery	Mineral Resources	Anna Lewin	MAusIMM(CP)	MMG
Rosebery	Ore Reserves	Philip Uebergang	MAusIMM	Ground Control Engineering Pty Ltd
Dugald River	Mineral Resources	Richard Bueger	MAIG	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.

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[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 northeast 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.

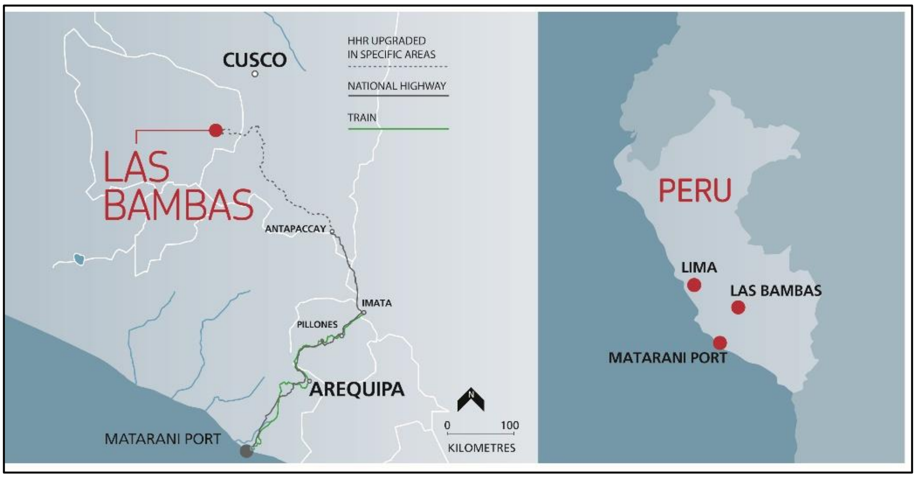


Figure 3-1 Las Bambas Mine location

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 2020 for the June 2021 report. The 2021 Mineral Resources estimation includes updated geological interpretation and estimation parameters.

3.2 Mineral Resources – Las Bambas

3.2.1 Results

The 2021 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 2021 Las Bambas Mineral Resources tonnage and grade (as at 30 June 2021)

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	0.4	1.4				5			
Inferred	0.01	1.1				0			
Total	**0.4**	**1.4**				**5**			
Ferrobamba Primary Copper[2]									
Measured	410	0.59	2.6	0.05	220	2,400	35	0.7	92
Indicated	280	0.70	3.2	0.06	200	2,000	29	0.6	57
Inferred	72	0.92	3.9	0.08	140	660	9	0.2	10
Total	**770**	**0.66**	**3.0**	**0.06**	**210**	**5,100**	**73**	**1.4**	**160**
Ferrobamba Total	**770**	**0.66**	**3.0**	**0.06**	**210**	**5,100**	**73**	**1.4**	**160**
Chalcobamba Oxide Copper[1]									
Indicated	6.5	1.5				94			
Inferred	0.5	1.7				8			
Total	**7.0**	**1.5**				**102**			
Chalcobamba Primary Copper[3]									
Measured	120	0.52	1.6	0.02	150	600	6.0	0.07	17
Indicated	170	0.70	2.7	0.03	120	1,200	15	0.18	21
Inferred	27	0.60	2.5	0.03	140	160	2.2	0.03	3.9
Total	**320**	**0.63**	**2.3**	**0.03**	**130**	**2,000**	**23**	**0.28**	**42**
Chalcobamba Total	**327**	**0.64**	**2.2**	**0.03**	**130**	**2,100**	**23**	**0.28**	**42**
Sulfobamba Oxide Copper[1]									
Inferred									
Total									
Sulfobamba Primary Copper[4]									
Indicated	80	0.68	4.8	0.02	170	540	12	0.1	14
Inferred	96	0.58	6.5	0.02	120	560	20	0.1	12
Total	**180**	**0.63**	**5.7**	**0.02**	**140**	**1100**	**32**	**0.1**	**25**
Sulfobamba Total	**180**	**0.63**	**5.7**	**0.02**	**140**	**1,100**	**32**	**0.1**	**25**
Oxide Stockpiles									
Indicated	13.0	1.1				10			
Sulphide Stockpiles									
Measured	26	0.39	1.8		142	100	1.5		3.7
Total Contained	**1,300**	**0.65**				**8,500**	**130**	**1.8**	**230**

Notes:

1 1% Cu Cut-off grade contained within a US$3.68/lb pit shell for oxide material.

2 Average 0.18% Cu Cut-off grade contained within a US$3.68/lb pit shell for primary material.

3 Average 0.20% Cu Cut-off grade contained within a US$3.68/lb pit shell for primary material.

4 Average 0.21% Cu Cut-off grade contained within a US$3.68/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 2021

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. Sample details are stored in an Geobank database for correlation with returned geochemical assay results. • Samples for analysis are bagged, shuffled, re-numbered and de-identified prior to dispatch. • 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 Lima for preparation and analysis. • There are no inherent sampling problems recognised. • Measures taken to ensure sample representivity include the collection, and analysis of coarse crush duplicates.
Drilling techniques	• In 2020, two types of drilling were used. The traditional one with wireline diamond core drilling and reverse air drilling from surface. Generally, drill core is not oriented, however, holes drilled for geotechnical purposes are oriented. All drillholes used in the Mineral Resource estimates have been drilled using HQ size. • The RC Drilling trial was executed in Ferrobamba Pit to evaluate the viability to use RC drill chip sampling for Resources purposes in operation area.
Drill sample recovery	• Recovery is estimated by measuring the recovered core within a drill run length and recorded in the Geobank database. Run by run recovery has been recorded for 606,342.51m of the total 650,231.98m of diamond drilling in the data used for Mineral Resources estimation for the Sulfobamba, Chalcobamba and Ferrobamba deposits. Diamond drill recovery average is about 96% for all deposits (98% for Sulfobamba, 97% for Chalcobamba and 93% 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. • 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

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	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 core is 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. • Representivity of samples is checked by duplication at the crush stage one in every 40 samples. No field duplicates are taken. • Until 2018, a twelve-month rolling Quality Assurance / Quality Control (QAQC) analysis of sample preparation techniques indicate the process is appropriate for Las Bambas samples. • From 2019, monthly and quarterly QAQC Quality Assurance / Quality Control (QAQC) analysis and sample preparation techniques are reported, following the Geological Assay Work Quality Requirement. • 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. • Previous to 2019, the RC sampling was done using a cyclone for dry and wet samples on one-metre intervals. Samples are collected in buckets, weighted, and split on-site using a riffle splitter, aiming for 2 to 3 kg subsample, weight taken on-site with an electronic balance. • As a rule, 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. • In the case of wet samples, we did not have the proper splitter to process the sample. The one-meter sample was collected in microporous bags. The sample was divided

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	using a wet rotary splitter. Dump samples were let to air dry on the core shack before splitting using conventional riffle splitter. - From 2019, the RC sampling is done using a vibrating-cone-rotary-splitter for dry and wet samples on two metre intervals. Samples are collected in trays, weighted, getting 3 to 6 Kg. subsample, weight taken on-site with an electronic balance. - The rotary splitter has a second tray, allowing to obtain duplicate samples. - 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 - Until 2018, a twelve month rolling Quality Assurance / Quality Control (QAQC) analysis of sample preparation techniques indicate the process is appropriate for Las Bambas samples. - From 2019, monthly and quarterly QAQC Quality Assurance / Quality Control (QAQC) analysis and sample preparation techniques are reported, following the Geological Assay Work Quality Requirement. - 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: ○ Digestion by 4-Acids. Cu, Ag, Pb, Zn, Mo - 0.5g of sample, and the determination was done by Atomic Absorption Spectrometry (AAS). ○ Acid soluble - 0.2g sample. Leaching by a 15% solution of H_2SO_4 at 73°C for 5 minutes. Determination by AAS. ○ Acid soluble - 0.2g of sample. Digestion by a citric acid solution at 65°C for 15 minutes. Determination by AAS. ○ Au – 30g Fire Assay Cupellation at 950°C. Determination by AAS. Above detection limit analysis by gravimetry. ○ 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: ○ Cu, Ag, Pb, Zn, Mo - 0.5g of sample. Digestion by 4-Acids. Determination by Atomic Absorption Spectrometry (AAS). ○ Acid soluble copper – 0.2g sample. Leaching by a 15% solution of H_2SO_4 at 73°C for 5 minutes. Determination by AAS. ○ Acid Soluble copper - 0.2g of sample. Digestion by a citric acid solution at 65°C for 15 minutes. Determination by AAS. ○ Au – 30g Fire assay with AAS finish. Over-range results are re-assayed by Gravimetric Finish. ○ 35 elements - Digestion by aqua-regia and determination by ICP. - In 2015 ALS (Lima) used the following methods: ○ Cu, Ag, Pb, Zn, Mo - 0.5g of sample. Digestion by 4-Acids. Determination by Atomic Absorption Spectrometry (AAS).

Section 1 Sampling Techniques and Data

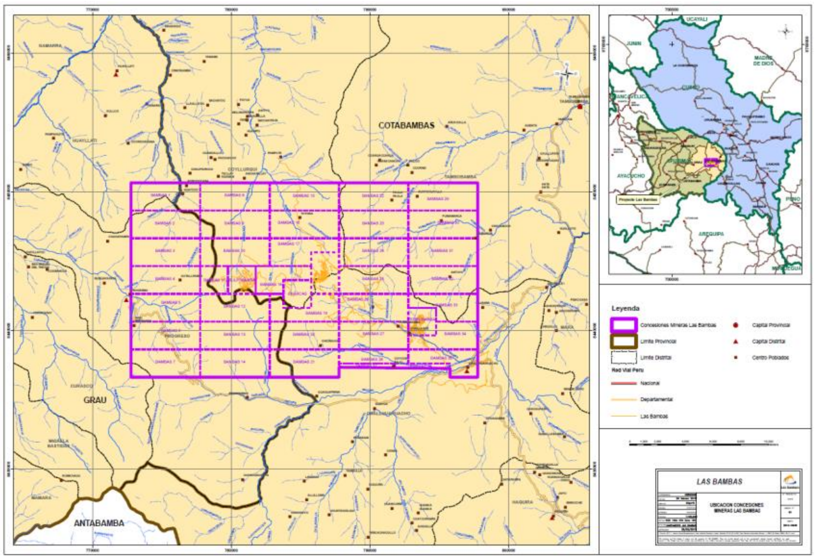
Criteria	Commentary
	○ Acid soluble copper – 0.5g sample. Leaching by a 5% solution of H_2SO_4 at ambient temperature for 1 hour. Determination by AAS. ○ Au – 30g Fire assay with AAS Finish. Over-range results are re-assayed by Gravimetric Finish. ○ 52 elements - Digestion by aqua-regia and determination by ICP. • From 2016 to present routine assay methods undertaken by ALS (Lima) for Las Bambas are as follows: ○ Cu, Ag, Mo. Digestion by 4-Acids and determination by Atomic Absorption ○ Cu Sequential: Cu is reported as soluble in sulfuric acid, Soluble in cyanide and residual. Determination by Atomic Absorption. ○ Au – 30g Fire assay with AAS Finish. Over-range results are re-assayed by Gravimetric Finish. ○ 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. • During 2020, we returned to Inspectorate-BV laboratory for umpire assay checks; the rate of sample selection was 1 in 20 samples, using the criteria to check samples over 0.1% Copper.

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	• 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: ○ <u>Primary coarse duplicates</u>: Inserted at a rate of 1:25 samples (2005-2007), 1:50 samples (2008), and 1:40 samples (2010-2020). ○ <u>Coarse blank samples</u>: Inserted after a high-grade sample (coarse blank samples currently make up about 4.1% of all samples analysed). ○ <u>Pulp duplicates samples</u>: Inserted 1:25 samples (2005-2007), 1:50 samples (2008), and 1:40 samples (2010-2020). ○ <u>Pulp blank samples</u>: Util 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: ○ <u>Blanks</u>: no significant evidence of contamination has been identified during the sample preparation and assay. ○ <u>Duplicates</u>: 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% (R^2>0.90). In 2020, all average CV calculated from coarse and pulp duplicates is acceptable. These results were also repeated in the external ALS check samples. ○ <u>Certified Reference Material</u>: acceptable levels of accuracy and precision have been established. ○ <u>Sizing</u> test results were applied to 3% of samples. In 2020, sizing tests results are into 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.
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.

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	• In 2019-2020 a twinning program was completed to test RC drilling against previously completed Diamond Drill holes. The lithology, grade distribution and variability between dry and wet samples comparison were made. Nine RC drill holes twinned existing DDH. • 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 hand held 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 aerophotogrammetric 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 used were WGS 84 and PSAD 56. A triangulated surface model presumably derived

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	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: ○ Adequately trained and supervised sampling personnel. ○ Samples are stored in a locked compound with restricted access during preparation. ○ Dispatch to various laboratories via contract transport provider in sealed containers. ○ Receipt of samples acknowledged by receiving analytical laboratory by email and checked against expected submission list. ○ 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. • Internal audits of the Inspectorate and Certimin laboratories have occurred twice a month by Las Bambas personnel. Historically, any issues identified have been rectified. Currently, there are no outstanding material issues. • 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.

<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>• Given to COVID19 pandemic there was no option to visit the laboratory in the year 2020, with the last visit being in 2019.
• 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.</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 Las Bambas project has tenure over 41 Mineral Concessions. These Mineral Concessions secure the right to the minerals in the area, but do not provide rights to the surface land.
• Property of surface land is acquired through a separate process. The below map outlines the 41 Mineral Concessions and the mine property owned by MMG.

• Tenure over the 41 Concessions is in good standing. There are no known impediments to operating in the area.</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>Exploration done by other parties</td><td>

The Las Bambas project has a long history of exploration by the current and previous owners.
Exploration commenced in 1966 with around 450km of surface diamond drilling drilled to date.
Initial exploration was completed by Cerro de Pasco followed by Cyprus, Phelps Dodge, BHP, Tech, and Pro Invest prior to Xstrata Resources definition drilling which commenced in 2005. All historical drilling is outlined in the table below.
Glencore and Xstrata merged to form Glencore plc. In 2013, MMG Ltd, Guoxin International Investment Corporation Limited and CITIC Metal Co. Ltd enter into an agreement to purchase the Las Bambas project from Glencore plc.

<table>
<tr><th>Company</th><th>Year</th><th>Deposit</th><th>Purpose</th><th>Type</th><th># of DDH</th><th>Drill size</th><th>Metres Drilled</th></tr>
<tr><td>Cerro de Pasco Cyprus</td><td>1996</td><td>Chalcobamba</td><td>Exploration</td><td>DDH</td><td>6</td><td>Unknown</td><td>906</td></tr>
<tr><td></td><td>1996</td><td>Chalcobamba</td><td>Exploration</td><td></td><td>9</td><td></td><td>1 367</td></tr>
<tr><td>Phelps Dodge</td><td>1997</td><td>Ferrobamba</td><td>Exploration</td><td>DDH</td><td>4</td><td>Unknown</td><td>738</td></tr>
<tr><td></td><td></td><td>Chalcobamba</td><td></td><td></td><td>4</td><td></td><td>653</td></tr>
<tr><td>BHP</td><td>1997</td><td>Ferrobamba</td><td>Exploration</td><td>DDH</td><td>3</td><td>Unknown</td><td>366</td></tr>
<tr><td></td><td></td><td>Chalcobamba</td><td></td><td></td><td>4</td><td></td><td>659</td></tr>
<tr><td>Pro Invest</td><td>2003</td><td>Ferrobamba</td><td>Exploration</td><td>DDH</td><td>4</td><td>HQ</td><td>738</td></tr>
<tr><td></td><td></td><td>Chalcobamba</td><td></td><td></td><td>7</td><td></td><td>1 590</td></tr>
<tr><td>Xtrata</td><td>2005</td><td>Ferrobamba</td><td>Resource Evaluation</td><td>DDH</td><td>109</td><td>HQ</td><td>26 840</td></tr>
<tr><td></td><td></td><td>Chalcobamba</td><td></td><td></td><td>66</td><td></td><td>14 754</td></tr>
<tr><td></td><td></td><td>Sulfobamba</td><td></td><td></td><td>60</td><td></td><td>13 943</td></tr>
<tr><td></td><td>2006</td><td>Ferrobamba</td><td>Resource Evaluation</td><td>DDH</td><td>125</td><td>HQ</td><td>51 004</td></tr>
<tr><td></td><td></td><td>Chalcobamba</td><td></td><td></td><td>95</td><td></td><td>27 983</td></tr>
<tr><td></td><td></td><td>Sulfobamba</td><td></td><td></td><td>60</td><td></td><td>16 972</td></tr>
<tr><td></td><td></td><td>Charcas</td><td></td><td></td><td>8</td><td></td><td>2 614</td></tr>
<tr><td></td><td></td><td>Azuljaja</td><td></td><td></td><td>4</td><td></td><td>1 969</td></tr>
<tr><td></td><td>2007</td><td>Ferrobamba</td><td>Resource Evaluation</td><td>DDH</td><td>131</td><td>HQ</td><td>46 710</td></tr>
<tr><td></td><td></td><td>Chalcobamba</td><td></td><td></td><td>134</td><td></td><td>36 618</td></tr>
<tr><td></td><td></td><td>Sulfobamba</td><td></td><td></td><td>22</td><td></td><td>4 997</td></tr>
<tr><td></td><td>2008</td><td>Ferrobamba</td><td>Resource Evaluation</td><td>DDH</td><td>118</td><td>HQ</td><td>46 774</td></tr>
<tr><td></td><td></td><td>Chalcobamba</td><td></td><td></td><td>90</td><td></td><td>22 097</td></tr>
<tr><td></td><td>2010</td><td>Ferrobamba</td><td>Resource Evaluation</td><td>DDH</td><td>91</td><td>HQ</td><td>28 400</td></tr>
<tr><td>MMG</td><td>2014</td><td>Ferrobamba</td><td>Resource Evaluation</td><td>DDH</td><td>23</td><td>HQ</td><td>12 610</td></tr>
<tr><td></td><td>2015</td><td>Huancarane</td><td>Sterilisation</td><td>DDH</td><td>5</td><td>HQ</td><td>773</td></tr>
<tr><td></td><td>2015</td><td>Ferrobamba</td><td>Resource Evaluation</td><td>DDH</td><td>154</td><td>HQ</td><td>53 772</td></tr>
<tr><td></td><td>2016</td><td>Ferrobamba</td><td>Resource Evaluation</td><td>DDH</td><td>114</td><td>HQ</td><td>31 206</td></tr>
<tr><td></td><td></td><td>Chalcobamba</td><td>Resource Evaluation</td><td>DDH</td><td>13</td><td></td><td>1 880</td></tr>
<tr><td></td><td>2017</td><td>Ferrobamba</td><td>Resource Evaluation</td><td>DDH</td><td>49</td><td>HQ</td><td>1 181</td></tr>
<tr><td></td><td>2018</td><td>Ferrobamba</td><td>Resource Evaluation</td><td>DDH</td><td>82</td><td>HQ</td><td>48 022</td></tr>
<tr><td></td><td></td><td>Chalcobamba</td><td>Resource Evaluation</td><td>DDH</td><td>48</td><td></td><td>10 193</td></tr>
<tr><td></td><td>2019</td><td>Ferrobamba</td><td>Resource Evaluation</td><td>DDH</td><td>109</td><td>HQ</td><td>32 784</td></tr>
<tr><td></td><td></td><td></td><td></td><td>RC</td><td>52</td><td></td><td>6 804</td></tr>
<tr><td></td><td></td><td>Chalcobamba</td><td>Resource Evaluation</td><td>DDH</td><td>127</td><td>HQ</td><td>44 870</td></tr>
<tr><td></td><td></td><td></td><td></td><td>RC</td><td>3</td><td></td><td>654</td></tr>
<tr><td></td><td>2020</td><td>Ferrobamba</td><td>Resource Evaluation</td><td>DDH</td><td>31</td><td>HQ</td><td>7 854</td></tr>
<tr><td></td><td></td><td></td><td></td><td>RC</td><td>56</td><td></td><td>10 259</td></tr>
<tr><td></td><td></td><td>Chalcobamba</td><td>Resource Evaluation</td><td>DDH</td><td>105</td><td>HQ</td><td>20 232</td></tr>
<tr><td></td><td></td><td></td><td></td><td>RC</td><td>1</td><td></td><td>300</td></tr>
<tr><td>•</td><td></td><td></td><td>Total</td><td></td><td>1933</td><td></td><td>632 086</td></tr>
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</td></tr>
<tr><td>Geology</td><td>

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

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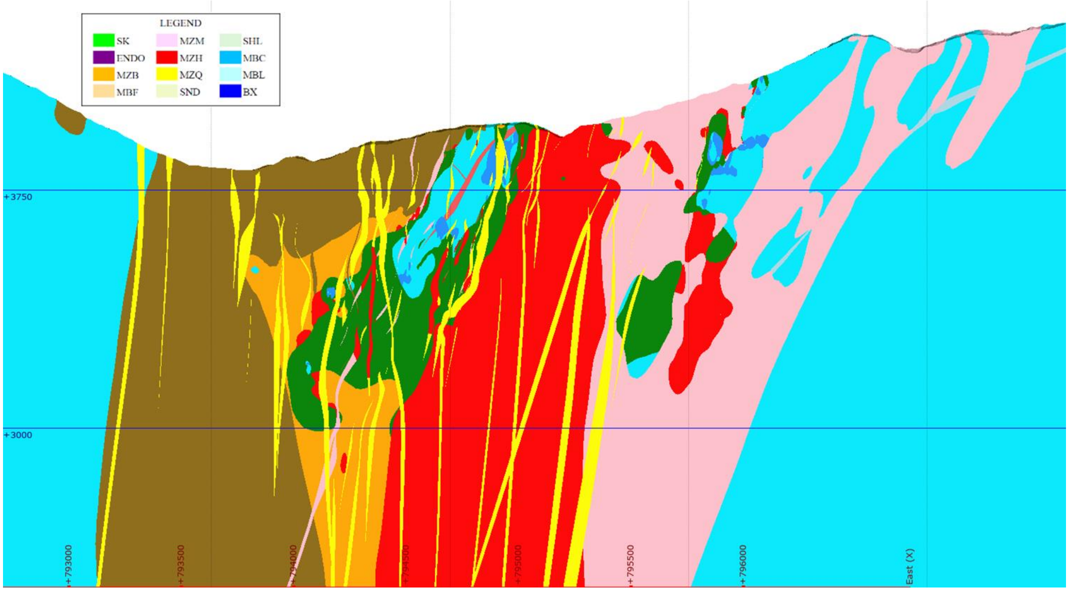
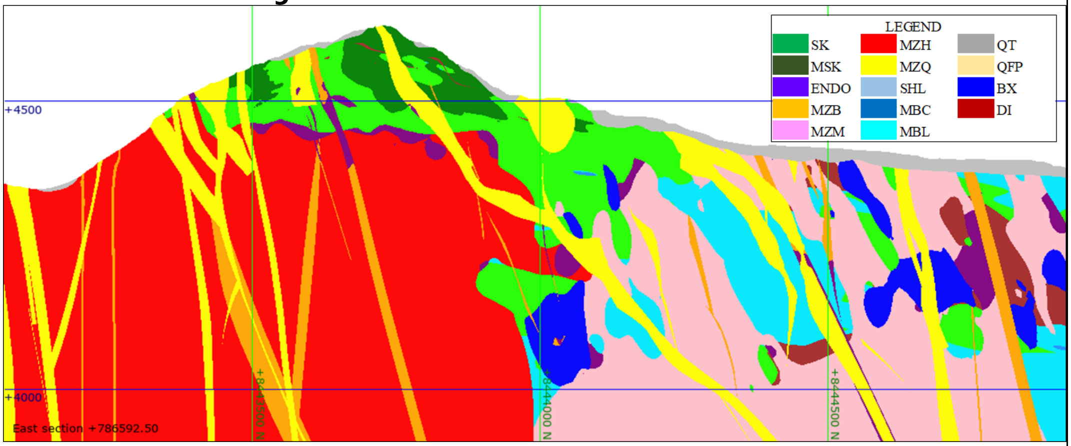
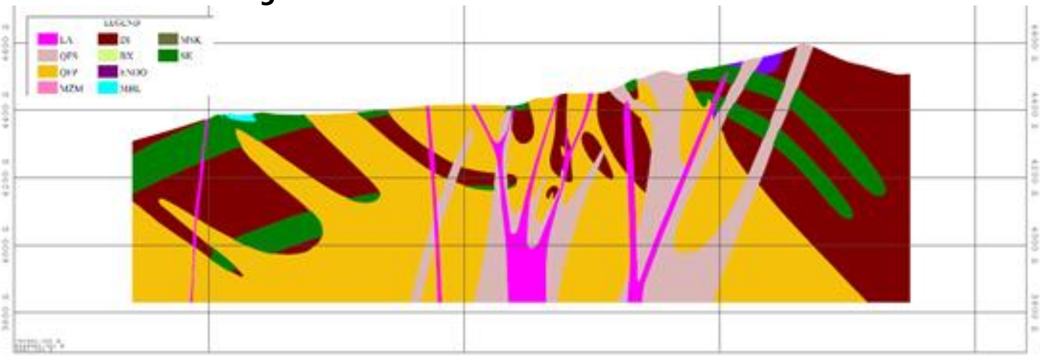
Section 2 Reporting of Exploration Results	
Criteria	**Commentary**
	Mesozoic sedimentary units, with the Ferrobamba Formation (Lower to Upper Cretaceous) being of greatest mineralising importance. • The porphyry style mineralisation occurs in quartz-monzonite to granodiorite rocks. Hypogene copper sulphides are the main copper bearing minerals 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 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	• Historical exploration drillholes (prior to 2005) have been excluded from the Mineral Resource estimates. • No metal equivalents were used in the Mineral Resources estimation.
Relationship between mineralisation width and intercepts lengths	• Historical exploration drillholes (prior to 2005) have been excluded from the Mineral Resource estimates. • Mineralisation true widths are captured by interpreted mineralisation 3D wireframes. Drillholes are drilled to achieve intersections as close to orthogonal as possible.
Diagrams	**Section Through Ferrobamba** 

Section 2 Reporting of Exploration Results	
Criteria	**Commentary**
	Section Through Chalcobamba  **Section Through Sulfobamba** 
Balanced reporting	• All drilling completed during the 2020 reporting period completed at Ferrobamba 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.

Section 2 Reporting of Exploration Results	
Criteria	**Commentary**
	• 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: ○ All Las Bambas drillhole data is stored in a Microsoft SQL Server database (Geobank_LasBambasRE) on the Las Bambas site server, which is regularly backedup following IT policies. ○ 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. ○ Assays are loaded directly into the database from encrypted digital files provided from the assay laboratory. ○ The measures described above ensure that transcription or data entry errors are minimised. • Data validation procedures include: ○ 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. ○ 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. ○ 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. 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. • Several site visits to the Ferrobamba area and the Chalcobamba area have been conducted but due to local community restrictions, the Competent Person has been unable to visit Sulfobamba to date.
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.

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
	- The 2021 geological interpretation was undertaken on sections orientated 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 2010 geological interpretation were for the most part valid (with minor changes) and were applied for the 2020 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 information existed). Orthogonal sections were also interpreted to ensure lithological continuity. - In 2019, Chalcobamba's 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 gradeshell 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

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
	○ 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. • 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 gradeshell greater than 0.1% Cu by lithology were made. These were used together with lithology and oxidation domain models as contraints 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

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
	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. • 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 0.18% Cu cut-off grade for hypogene material to 0.20% Cu for marble/calc-silicate hosted material and 0.19% 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$3.68/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

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
	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 and 2017 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 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 is under evaluation by the authorities.
	• Las Bambas has started the process for the 4th modification to include: Ferrobamba Pit expansion, Chalcobamba Phase II, TSF 1 expansion, drilling and others.
	• Las Bambas has started the process for new environmental technical report to include: Ferrobamba Phase 6A, Chalcobamba SW, increase of concentrator plant in 5% (152,230 Tn/d), relocation of overland conveyor (#4) and others.
	• 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, the approval of this permit has been delayed until 31 March 2022. Las Bambas is working in conjunction with the Government to achieve such approval.
	• 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. Three studies have been conducted looking at increasing tailings storage capacity at Las Bambas:
	  ◦ Tailings characterization test work to assess final settled density and beach slope in current TSF.
	  ◦ Options assessment to increase capacity at TSF currently under construction.

<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>- Additional Tailings Storage Prefeasibility A, which includes TSF1 expansion up to RL 4230 masl. This study replaces the Pre-feasibility study for an additional TSF at Tambo valley developed in 2015</td></tr>
<tr><td>Bulk density</td><td>- 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 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 to find 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 indepent audit of the 2017 block model during 2018. Minor recommendations were made and used in the subsequent 2018 model update</td></tr>
</table>

<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>

In addition, 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 August to November 2020. Minor recommendations were made and the higher ones were raised.
No fatal flaws were detected in any of these reviews and all recommendations were considered and addressed in the 2021 Mineral Resources update.

A self-assessment of all 2021 Mineral Resource modelling was completed by the Competent Person using a standardised MMG template. No fatal flaws were detected in the review. 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.
Sequential copper results are used to model an oxidation type domain. This is used to constrain the soluble copper in sulfuric acid, cyanidable copper and the residual in the estimation process.

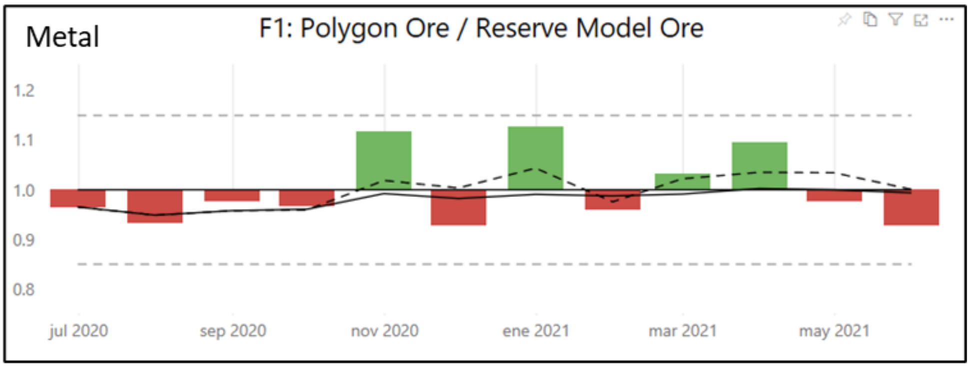
</td></tr>
<tr><td>Discussion of relative accuracy / confidence</td><td>

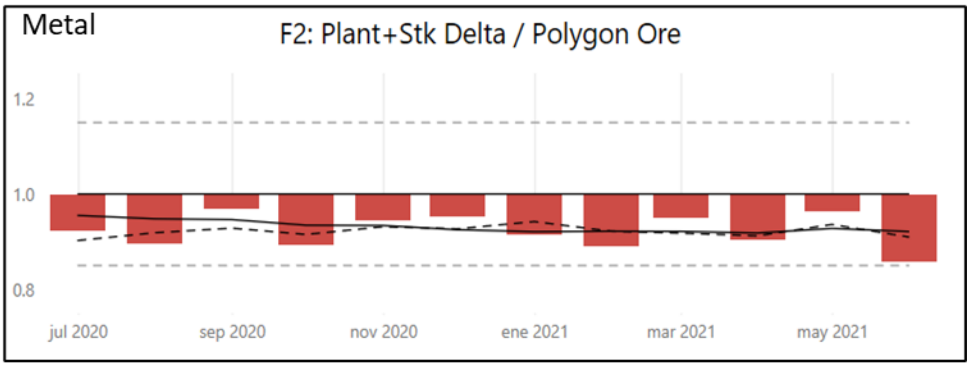
There is high geological confidence of the spatial location, continuity and estimated grades of the modelled lithologies within the Mineral Resources. Minor, local variations are expected to occur on a sub-25m scale that is not detectable by the current drill spacing. Global declustered statistics of 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 1% for copper metal. This comprises a 6% over-call of grade and a 5% under-call of tonnage.

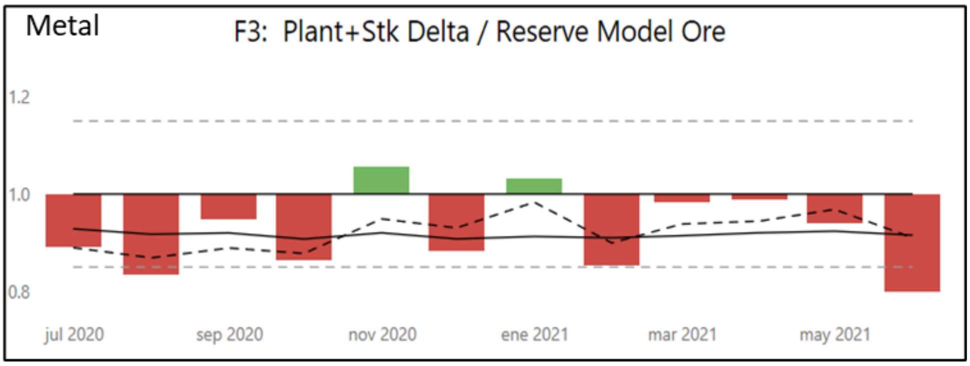
<table>
<tr><th></th><th>Block Model</th><th>Factor</th><th>Grade</th><th>Tonnes</th><th>Metal</th></tr>
<tr><td rowspan="3">Year to June 2021</td><td rowspan="3">2021</td><td>F1</td><td>1.00</td><td>1.02</td><td>1.01</td></tr>
<tr><td>F2</td><td>0.95</td><td>0.97</td><td>0.91</td></tr>
<tr><td>F3</td><td>0.94</td><td>0.98</td><td>0.92</td></tr>
<tr><td rowspan="3">1 July 2020 to 30 June 2021</td><td rowspan="3">2021</td><td>F1</td><td>0.94</td><td>1.05</td><td>0.99</td></tr>
<tr><td>F2</td><td>0.95</td><td>0.98</td><td>0.92</td></tr>
<tr><td>F3</td><td>0.89</td><td>1.03</td><td>0.92</td></tr>
<tr><td rowspan="3">1 July 2019 to 30 June 2020</td><td rowspan="3">2021</td><td>F1</td><td>0.98</td><td>0.99</td><td>0.98</td></tr>
<tr><td>F2</td><td>0.98</td><td>0.98</td><td>0.96</td></tr>
<tr><td>F3</td><td>0.96</td><td>0.97</td><td>0.94</td></tr>
<tr><td rowspan="3">All (since commercial production start)</td><td rowspan="3">2021</td><td>F1</td><td>1.00</td><td>1.03</td><td>1.03</td></tr>
<tr><td>F2</td><td>0.96</td><td>0.95</td><td>0.91</td></tr>
<tr><td>F3</td><td>0.96</td><td>0.99</td><td>0.94</td></tr>
</table>
<table>
<tr><td>F1</td><td>Ore Control / Ore Reserve</td></tr>
<tr><td>F2</td><td>Mill / Ore Control</td></tr>
<tr><td>F3</td><td>Mill / Ore Reserve</td></tr>
</table>
</td></tr>
</table>

Section 3 Estimating and Reporting of Mineral Resources

Criteria	Commentary
	• The F1 reconciliation indicates that the 2021 model has under-called metal by 1% for the year to June 2021 compared to over-calling by 2% for the year to June 2020. • The F3 (Mill / Reserve) reconciliation indicates that the Reserve model has over-called metal by 8%, and under-called tonnes by 3% for the year ended June 2021. The project to date reconciliation shows the Reserve has over-called metal production (F3) by 6% while the F1 metal of 3% under-call is consistent with prior years' models. • Further analysis using the F2 reconciliation factor (Mill / Grade Control) for the year ending June 2021 shows that metal is 8% lower, comprising 2% lower tonnes and 5% 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 2021 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

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 Mineral Resources - I consent to the release of the 2020 Mineral Resources and Ore Reserves Statement as at 30 June 2020 Executive Summary and Technical Appendix Report and this Consent Statement by the directors of MMG Limited:

01/10/2021

Hugo Rios MAusIMM(CP) (#311727)

Date:

Jorge Valverde
Lima, Peru

Signature of Witness:

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

3.3 Ore Reserves – Las Bambas

3.3.1 Results

The 2021 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 2021 Las Bambas Ore Reserves tonnage and grade (as at 30 June 2021)

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	360	0.61	2.7	0.05	220	2,200	31	0.60	80
Probable	160	0.77	3.5	0.07	190	1,200	18	0.38	31
Total	**520**	**0.66**	**2.9**	**0.06**	**210**	**3,400**	**49**	**0.97**	**110**
Chalcobamba Primary Copper[2]									
Proved	83	0.60	1.9	0.02	140	500	5	0.06	12
Probable	140	0.74	2.7	0.03	120	1,000	12	0.15	17
Total	**220**	**0.69**	**2.4**	**0.03**	**130**	**1,500**	**17**	**0.21**	**28**
Sulfobamba Primary Copper[3]									
Probable	56	0.79	5.8	0.03	160	440	10	0.05	9
Total	**56**	**0.79**	**5.8**	**0.03**	**160**	**440**	**10**	**0.05**	**9**
Sulphide Stockpiles									
Proved	26	0.39	1.8	-	140	100	1.5	-	3.7
Total	**26**	**0.39**	**1.8**	**-**	**140**	**100**	**1.5**	**-**	**3.7**
Total Contained Metal	**820**	**0.67**	**3.0**		**180**	**5,500**	**78**	**1.2**	**150**

1 0.20% to 0.24% Cu cut-off grade based on rock type and recovery
2 0.22% to 0.29% Cu cut-off grade based on rock type and recovery
3 0.24% to 0.29% 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

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 2021

<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/Andrew Fowler</td><td>Helber Holguino/Andrew Fowler</td><td>Helber Holguino/Andrew Fowler</td></tr>
<tr><td>Updated by</td><td>Helber Holguino</td><td>Helber Holguino</td><td>Helber Holguino</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>17 May 2021</td><td>28 Apr 2021</td><td>28 Apr 2021</td></tr>
<tr><td>Block model file</td><td>lb_fe_mor_2104v14.bmf</td><td>lb_ch_mor_2103.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;

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

  - Audit of Las Bambas Ore Reserves 2013, by Mintec, Inc in October 2013;
  - MMG Competent Person Report prepared by Runge Pincock Minarco (RPM), June 2014;
  - MMG Las Bambas cut-Off Grade Report 2021;
  - 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;
  - 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
- 2021 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

Cut-off parameters

- 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) 2021 has been calculated with updated metal prices and costs and is applied to the copper grade. (Source: 2021 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:

COG Component	Ferrobamba by Ore Type					
	FSSL	FSSM	FPSL	FPSM	FMSL	FBRE
BCOGinpit	0.20%	0.22%	0.20%	0.24%	0.24%	0.22%

Cut-off grades by ore-type for Chalcobamba:

COG Component	Chalcobamba by Ore Type						
	CSSL	CSSM	CSML	CSMM	CPSL	CPSM	CBRE
BCOGinpit	0.22%	0.26%	0.22%	0.26%	0.22%	0.26%	0.29%

Cut-off grades by ore-type for Sulfobamba:

COG Component	Sulfobamba by Ore Type				
	SSSL	SSSM	SPSL	SPSM	SBRE
BCOGinpit	0.24%	0.29%	0.24%	0.28%	0.25%

Mining factors or assumptions	• 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. • 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 studies performed by site personnel and Itasca (2017 to 2021). The pits are sectored by structural domains and geotechnical sectors. • Ferrobamba Design sectors NE and E were updated based on the new structural model released on Oct. 2019. Sectors W1 & W2 were also updated for Phase 5 based on final bench performance. No major changes where incorporated on Final Phase design parameters. • Chalcobamba Bench Face Angles for design sectors CH-N, CH-E, CH-SE, CH-S2, CH-S1 and CH-SW on upper level increased from 65° to 70° as structural and rock mass conditions on the sectors are favourable. The change will allow an increase in effective catchment berm. No change to IRA was introduced. • Geotechnical slope design angles for 2021 were reported on the memorandum (Geotechnical Slope Design Guidance Ferrobamba - Sulfobamba 2021 and Geotechnical Design Guidance - Chalcobamba 2021). The summary table for slope design angles, by pit, is presented below:

Geotechnical recommendations for Ferrobamba

Design Parameters							
Design Sector	**Level (masl)**	**Bench height (m)**	**Berm Face Angle (BFA°)**	**Berm Width (m)**	**Interramp angle (IRA °)**	**Interamp height (m)**	**Decoupling Berm width (m)**
NW (P3)	4080-3900	15	80	14	42	150	25
	Below 3900	30	70	13.4	51		30
W1 (P3 / P5)	4140 - 3975	15	80	14	42	150	25
	Below 3975mRL	30	70	13.4	51		30
	Below Ramp, 02 single benches are maintained with IRA: 45°, BFA: 70° and CB:10.0 m						
W2 (P5)**	4110-4035 LMT_S2	15	37	5.0	31	105	20
W2 (P5)	4035 - 3855	15	70	8.5	47	105	25
	At main ramp section 3 leave a double decoupling berm on 3865 mrl						
SE	4095 - 3750	15	70	11.2	42	150	25
	Below 3750	30	70	13.4	51		30
NE (P5 / FP)	*	15	70	11.2	42	120	25
NW (P5)	*	15	70	9	47	150	25
NW (FP)	*	30		12	53		30
W1 (FP)	*	15	70	9	47	150	25
	*	30		12	53		30
W2 (FP)	*	15	70	9	47	105	25
CE (P5)	*	30	70	12	53	150	30
SE (FP)	Surface - 3750	15	70	9	47	150	25
SE (P5/FP)	Below 3750	30		12	53		30
SW (P6 / FP) Use final pit graph	Above T-6 Channel	15	70	11.2	42	105	30
	*	30		13	51	150	30
	*	15		9	47		25
E (P5)	4155 - 4035	In-pit Waste dump area. Use BFA=37° and Bench Height of 15m					
	4030-3660	15	70	12.4	40	60-75	25
E (FP)	*	15	70	9	47	105	25

Geotechnical recommendations for Chalcobamba:

Chalcobamba Geotechnical Design Parameters

Zone	Level (masl)	BFA	Bench Height (m)	Berm Width (m)	IRA (°)	Decoupling Height (m)	Ramp Width	Decoupling 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 data collection and analysis is currently being implemented for 2021 for Ferrobamba and Chalcobamba. This will improve confidence in the slope design guidance at these deposits. The bulk of the findings from the data collection and analysis will be available for inclusion in the 2022 Ore Reserve slope design guidance.
- The 2021 Mineral Resources models for Ferrobamba and Chalcobamba, which incorporated the additional ore loss variable, have been used for the updated 2021 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 2021 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 are the main ore sources for 2021.

  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 2021	2021	F1	1.00	1.02	1.01
		F2	0.95	0.97	0.91
		F3	0.94	0.98	0.92
1 July 2020 to 30 June 2021	2021	F1	0.94	1.05	0.99
		F2	0.95	0.98	0.92
		F3	0.89	1.03	0.92
1 July 2019 to 30 June 2020	2021	F1	0.98	0.99	0.98
		F2	0.98	0.98	0.96
		F3	0.96	0.97	0.94
All (since commercial production start)	2021	F1	1.00	1.03	1.03
		F2	0.96	0.95	0.91
		F3	0.96	0.99	0.94

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.
- 2021 reconciliation results have indicated significant progress with the 2020 geological model with regards to ore tonnage estimation (F1t=1.05 or 5% under-call), this has been addressed by the new 2021 model.
- 2021 reconciliation results support the continuing application of the ore loss factors as outlined above. The Competent Person considers this to be appropriate for the 2021 Ore Reserve estimation based on the current information.
- After the internal review which 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 controlled and now monthly meetings are held to follow up. • A Midterm model was introduced to inform the ore control process, among other initiatives. • 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 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/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 of the tests were completed by the 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 of 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 standards, and concentrate quality continues to be very acceptable for processing by smelters internationally.

- 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.

  Ferrobamba:

  For all the materials except marble:

  $Cu\ Recovery\ (\%) = (96.0-94.0*(CuAS/Cu\ ) + 1.6$

  For marble:

  $Cu\ Recovery\ (\%) = (96.0-94.0*(CuAS/Cu\ ) -13 + 1.6$

  Chalcobamba:

  $Cu\ Recovery\ (\%) = 94.4-90.0*(CuAS/Cu) + 1.6$

  Sulfobamba:

  $Cu\ Recovery\ (\%) = 89.2 - 80.4*(CuAS/Cu) + 1.6$

  An improvement in recovery of 1.6% has been added to account for ongoing metallurgical improvement work since the start of operation.
- The recovery of Mo, Ag, Au, has been provided by Metallurgical Group at Las Bambas.

Metal		**Ferrobamba**	**Chalcobamba**	**Sulfobamba**
Mo	%	55.5	55.5	55.5
Ag	%	75.0	75.0	75.0
Au	%	71.0	71.0	71.0

- 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.

Environmental and Legal Permits

- 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. • 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 is under evaluation by the authorities. • Las Bambas has started the process for new environmental technical report to include: Ferrobamba Phase 6A, Chalcobamba SW, increase of concentrator plant in 5% (152,230 Tn/d), relocation of overland conveyor (#4) and others. • Las Bambas has started the process for the 4th modification to include: Ferrobamba Pit expansion, Chalcobamba Phase II, TSF 1 expansion, drilling and others. • In February 2019 the file for the authorization to start activities for the Chalcobamba pit 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 multiple changes to government , the approval of this permit has been delayed until at least July 2021. Las Bambas is working in conjunction with the 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. • Currently, Las Bambas has four water use licenses: o License for underground water obtained with Directorial Resolution 0519-2015-ANA / AAA.XI.PA, for a volume up to 9,460.800 m3 / year. o License for non-contact water obtained with Directorial Resolution 0518-2015-ANA / AAA.XI.PA, for a volume up to 933.993 m3 / year. o 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. o 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. Three 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 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. This study replaces the Pre-feasibility study for an additional TSF at Tambo valley developed in 2015. • 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, taking into account additional information now available during four years of operation. The operating costs used for Ore Reserves estimation are based on the 2021 Budget (2021-2023) and 2020 Life of Asset (LoA) (2024 onwards) as per Corporate (MMG) guidelines and other considerations. Specifically: o Average costs are calculated by using the first 3 years budget plus remaining LoA estimated costs year by year; o 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 LoA; and o 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 the objective of each capital expenditure in the operation.
Revenue factors	• All mining input parameters are based on the Ore Reserves estimate LoA 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 2020 LoA 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.
Other	- Las Bambas owns 7,718Ha 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 November 30th, 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% within a volume equivalent to 3 months of production while Probable Ore Reserves are considered to have a relative accuracy of +/- 15% within 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, 2021, as a result it is estimated that 1Mt of ore with an assumed grade of 1.9% 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 Geologist 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) Jeff Price, Head of Geotech, MMG Ltd (Melbourne)	Geotechnical parameters
Javier E Ponce, 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, Yao Wu, 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 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 2021*– with the author's approval. Any other use is not authorised

XX/XX/2021

Yao Wu MAusIMM(CP)(#108391)

Date:

This signature was scanned for the exclusive use in this document – the *MMG Mineral Resource and Ore Reserve Statement as at 30 June 2021* – with the author's approval. Any other use is not authorised.

Jorge Valverde
Lima, Peru

Signature of Witness:

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

4 KINSEVERE OPERATION

4.1 Introduction and setting

Kinsevere is located in the 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″.

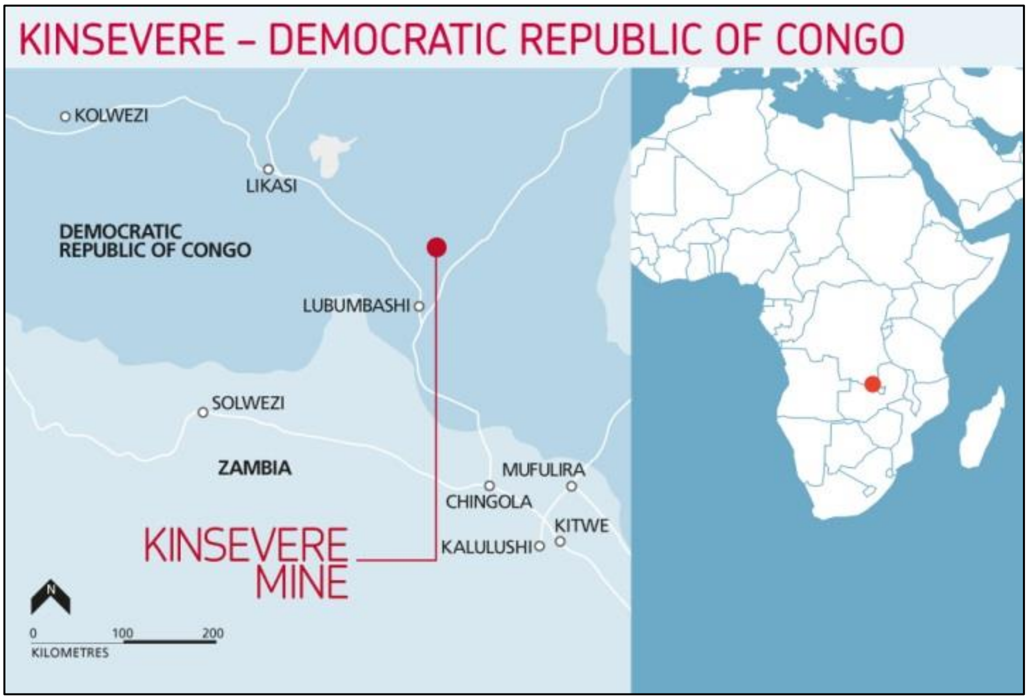


Figure 4-1 Kinsevere Mine location

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 2021 Kinsevere Mineral Resources are summarised in Table 8. The Kinsevere oxide Mineral Resource is inclusive of the Ore Reserve.

The reporting cut-off grade applied to the model is 0.6% acid soluble copper (CuAS%) for the oxide Mineral Resource, 0.7% total copper (Cu%) for the transitional mixed (TMO) Mineral Resource and 0.8% 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 Mineral Resource is additionalto the Kinsevere Copper Mineral Resource. This mineralisation contains very low grade copper which is below the copper cut-off grade.

Table 8 2021 Kinsevere Mineral Resource tonnage and grade (as at 30 June 2021)

Kinsevere Mineral Resource

					Contained Metal		
Oxide Copper[2]	**Tonnes (Mt)**	**Copper (% Cu)**	**Copper (AS % Cu)**	**Cobalt (% Co)**	**Copper (kt)**	**Copper AS kt**	**Cobalt kt**
Measured	1.2	3.2	2.6	0.11	39	31	1.3
Indicated	5.5	2.7	2.2	0.09	150	120	5.0
Inferred	2.2	2.1	1.7	0.07	47	39	1.6
Total	**8.9**	**2.7**	**2.2**	**0.09**	**230**	**190**	**7.9**
Transition Mixed Ore (TMO) Copper[3]							
Measured	0.8	2.0	0.71	0.15	15	5	1.2
Indicated	2.2	2.1	0.69	0.12	46	15	2.7
Inferred	1.1	1.6	0.53	0.08	17	6	0.9
Total	**4.1**	**1.9**	**0.65**	**0.12**	**79**	**27**	**4.8**
Primary Copper[4]							
Measured	1.5	2.6	0.24	0.25	38	4	3.7
Indicated	19	2.3	0.17	0.10	430	31	20
Inferred	9.2	1.7	0.13	0.08	160	12	7.1
Total	**29**	**2.1**	**0.16**	**0.10**	**630**	**47**	**30**
Stockpiles							
Indicated	16	1.6	0.97		240	150	
Total	**16**	**1.6**	**0.97**		**240**	**150**	
Kinsevere Copper Total	**58**	**2.0**	**0.72**	**0.07**	**1,200**	**420**	**43**
Oxide-TMO Cobalt[5]							
Measured	0.02			0.31			0.07
Indicated	0.16			0.33			0.53
Inferred	0.99			0.32			3.2
Total	**1.20**			**0.32**			**3.8**
Primary Cobalt[6]							
Measured	0.01			0.24			0.03
Indicated	0.15			0.20			0.30
Inferred	0.17			0.25			0.43
Total	**0.34**			**0.22**			**0.75**
Kinsevere Cobalt Total	**1.5**			**0.30**			**4.5**

[1] AS stands for Acid Soluble

[2] 0.6% Acid soluble Cu cut-off grade

[3] 0.7% Total Cu cut-off grade

[4] 0.8% Total Cu cut-off grade

[5] 0.4% Co cut-off grade

[6] 0.2% Co cut-off grade

All Mineral Resources except stockpiles are contained within a US$3.68/lb Cu and $30.24/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 JORC 2012 Code Table 1 Assessment and Reporting Criteria for Kinsevere Mineral Resource complies with the 2012 JORC Code requirements specified by "Table-1 Section 1-3" of the Code. The Mineral Resource model used to compile the 2021 Mineral Resource was generated in 2020.

Table 9 JORC 2012 Code Table 1 Assessment and Reporting Criteria for Kinsevere Mineral Resource 2021

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
Sampling techniques	• The Mineral Resource uses a combination of reverse circulation (RC) drilling diamond drilling (DD). The RC drilling is predominately collected for grade control and the DD is used for exploration and resource delineation work. • DD core is sampled mostly as 1m intervals while samples in un-mineralised zones are sampled over 4m lengths. Sampling is predominantly performed by cutting half core, with half retained on site for future reference. For PQ drilling undertaken 2015-2020, quarter core was submitted for sampling. • Grade control drilling (RC) is composited into 2m samples collected after riffle splitting. • Each sample is crushed and pulverised to produce a pulp (>85% passing 75µm) prior to analysis at the site SGS laboratory. • 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 have been taken and analysed. • 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	• RC drilling was used to obtain 2m composited RC chip samples. 417,510m or 81% of the sample data used in the Mineral Resource were from RC samples (5.5-inch hammer), of that 357,309m (69%) was from Grade Control drilling. • PQ and HQ sized DD core were used to obtain nominal 1m sample lengths. 2015-2020 DD core was not routinely oriented. 97,183m or 21% of the sample data used in the Mineral Resource were from DD samples. • 53,464m of RC Grade Control drilling was completed since 2019 estimation and utilised in the 2020 estimate. • No exploration DD drilling occurred post the 2019 Mineral Resource estimation. The latest drilling were the 5 holes which were drilled in early 2020 to delineate the extent and test the continuity of the Resource at the Central Sulphide Extension (CSE) target between Central and Mashi pits. • In the view of the Competent Person sampling is of a reasonable quality to estimate the Mineral Resource.

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
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 fell 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 in 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 observed relationship between core loss and mineralisation or grade - no preferential bias has occurred due to any core loss.
Logging	• RC chips are logged by geologists directly into an Excel logging template, geological information captured includes lithology, stratigraphy, weathering, oxidation, colour, texture, grain size, mineralogy and alteration. This data is then imported into the database. • DD core samples both geological and geotechnical information is logged. (lithology, stratigraphy, mineralisation, weathering, alteration, geotechnical parameters: strength, RQD, structure measurement, roughness and infill material) • All RC chip and DD core samples (100%) have been geologically logged to a level that can support appropriate Mineral Resource estimation. • Logging captures both qualitative descriptions such as geological details (e.g. rock type, stratigraphy) with some 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 is photographed. • The total length and percentage of the relevant intersections logged is 100%.
Sub-sampling techniques and sample preparation	• DD core was split in half (NQ) or quartered (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 are collected from a cyclone by a trained driller's assistant. 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 collection into chip trays for logging 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 in the laboratory oven 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. • Representivity of samples was checked by sizing analysis and duplication at the crush stage. • Field duplicates were inserted at a rate of approximately 8% to ensure that the sampling was representative of the in-situ material collected. Field duplicates in

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	current RC programs have shown acceptable levels of repeatability across all elements analysed. • These practices are industry standard and are appropriate for the grain size of the material being sampled. • RC Grade Control samples are prepared on-site by the geology department, who provide pulp samples to the SGS analytical facility also on site at Kinsevere. The samples were oven dried at approximately 80°C, crushed to 85% passing -2mm using a jaw crusher and milled to 85% passing 75µm using one of three single sample LM2 vibratory pulverising mills. • Since 2015, Exploration and near-mine DD drilling core and RC chips are processed at the onsite Exploration core yard. Sample preparation was conducted at this facility through an ALS managed Containerised Preparation Laboratory (CPL). Pulp samples where then sent to ALS Johannesburg for analysis. • The sample size for both RC and DD is considered appropriate for the grain size of the material being sampled.
Quality of assay data and laboratory tests	• RC ore control samples are assayed at the onsite SGS Laboratory, ALS laboratory and SSM at Lubumbashi. • Following preparation, 50g pulp samples are routinely analysed for total and acid soluble copper, cobalt and manganese. • A 3-acid digest with AAS finish was used to analyse for total values. • A sulphuric acid digest with AAS finish was used to analyse for acid soluble copper. • All DD core samples prior to 2011 were assayed at: • ALS Chemex Laboratory, Johannesburg • McPhar Laboratory, Philippines • ACTLabs Laboratory, 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: • ICP-OES method with a 4-acid digest analysing 32 elements including copper from 0.5ppm to 1%. • ICP-OES method using alkali fusion is applied to over-range copper results. • ICP-AES with a 4-acid digest was used for calcium and sulphur analysis • XRF was used for uranium analysis. • Acid soluble copper using a sulphuric acid digest and AAS finish. • Since 2015 DD drilling, prepared samples were submitted to the ALS Laboratory in Johannesburg with the following assay scheme: • ICP-OES (ME-ICP61) method with a 4-acid digest analysing 33 elements plus OG triggers when Cu greater than 1% (OG62)

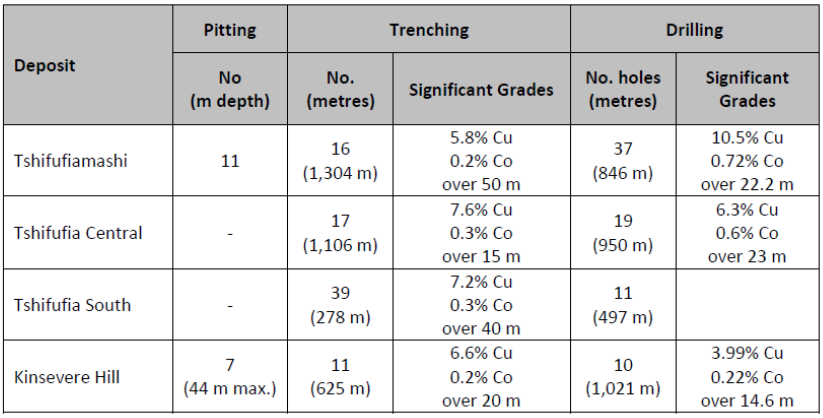
Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	- LECO analysed Total Carbon (C-IR07), Organic Carbon (C-IR17), Total Sulphur (S-IR08) and Sulphide Sulphur (S-IR07) - Acid soluble copper using a Sequential Leach (Cu-PKGPH06) finish. - No geophysical tools, spectrometers or handheld XRF instruments have been used in the analysis of samples external to the ALS laboratory for the estimation of Mineral Resources. - 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; and umpire laboratory checks are submitted for every batch of 20 samples to check accuracy, precision and repeatability of the assay result. Acceptable levels of accuracy and precision have been established. If control samples do not meet an acceptable level the entire batch is re-analysed. - The analysis methods described above are appropriate for the style and type of mineralisation.
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 pre-collars are present in the database. These were used to confirm and check geological intervals and/or assay intervals. Twin drill holes are not used in the Mineral Resource. - Data is collected in Excel spread sheets and imported into industry standard databases that have built in validation systems and QAQC reporting systems. Raw data is imported in the database as received by the laboratory. - Where data was deemed invalid or unverifiable it was excluded from the Mineral Resource estimation. - There are adjustments to the CuAS assay data whenever greater than the Total Cu assay data.
Location of data points	- Prior to 2011 all drill hole collars were located using a hand-held GPS. Accuracy of GPS is +/- 5m for x and y coordinates and has poor accuracy of the z (elevation) coordinates. Elevations of these holes were later adjusted by using a LIDAR survey method. - 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: -8000000 m in northing and -22.3 m in elevation. - 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.
Data spacing and distribution	- Majority of the Grade control RC drill pattern spacing is 5m x 15m, however in 2018 Grade control RC drill pattern spacing was 10m x 10m and it has been revised back

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	to spacing 5m x 15m since 2019 which is enough to adequately define lithology and mineralisation domain contacts and transition zones. • The overall DD pattern spacing is between 25m and 75m, which is sufficient to establish the required degree of geological and grade continuity that is appropriate for the Mineral Resource. Between 2015 and 2019, diamond drilling aimed to infill target areas to 40m x 40m spacing and down to 20m x 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.
Orientation of data in relation to geological structure	• The mineralisation strikes between north and north-west at Mashi / Central pits, and to, the east south east 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. All drill holes are 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.
Sample security	• Measures to provide sample security include: ○ Adequately trained and supervised sampling personnel. ○ Sea 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.
Audit and reviews	• An external independent audit has been performed on the grade control sampling techniques in July 2019, by OBK Consultants. Recommendations for improvements were provided, no material issues were identified. • Internal visits by MMG Group Office geologists to the SGS, ALS and SSM Lubumbashi laboratories are audited on an annual basis. From the most recent audit by the MMG Senior Geochemist (February 2020) there were no material risks identified. • The 2020 Kinsevere Mineral Resource model review was completed by an internal MMG Group Office geologist in May 2020. The Mineral Resource estimation was also reviewed by the Competent Person; and was found to be a reasonable global model with no material errors found.

Section 2 Estimation and Reporting of Mineral Resources	
Criteria	**Commentary**
Mineral tenement and	• The Kinsevere Mining Licence (PE 528) is located approximately 27 km north of Lubumbashi, the provincial capital of the Katanga Province, in the southeast of the

<table>
<tr><th colspan="2">Section 2 Estimation and Reporting of Mineral Resources</th></tr>
<tr><th>Criteria</th><th>Commentary</th></tr>
<tr><td>land tenure status</td><td>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 shall be submitted to DRC regulatory 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 impediments to operating in the area.</td></tr>
<tr><td>Exploration done by other parties</td><td>

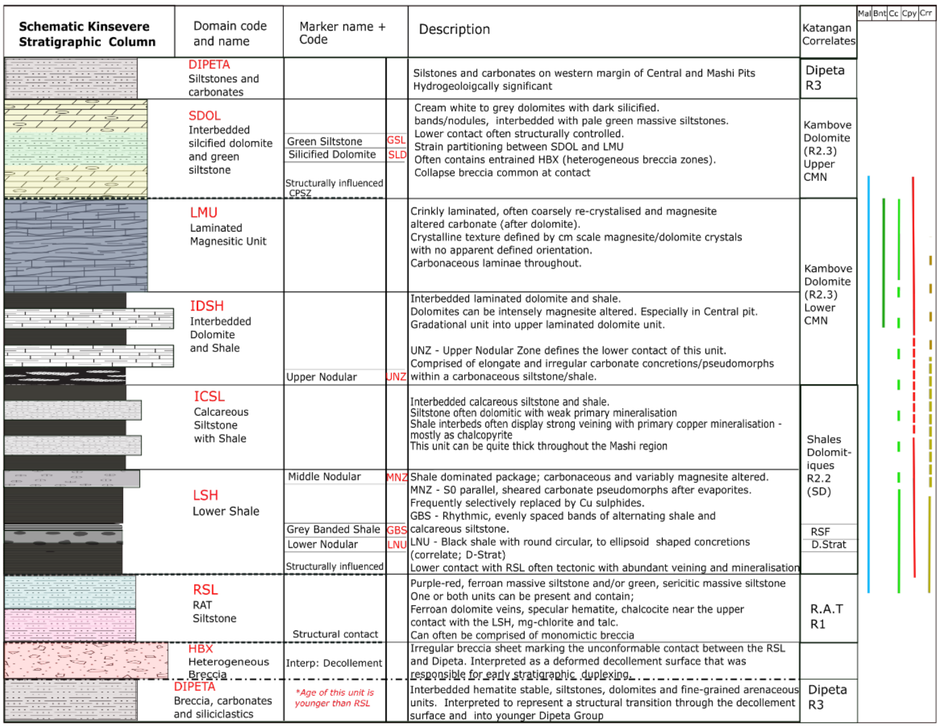
Summary of Previous Exploration Work by Gecamines and EXACO



<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 in 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 50 km radius of the known deposit to explore 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.
• Drilling commenced in May 2017 to inform the Sulphide Feasibility Study. This drilling was used to update the previous 2018 Mineral Resource model.
• Drilling commenced in Jan 2018 to test the link of 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).</td></tr>
</table>

Section 2 Estimation and Reporting of Mineral Resources	
Criteria	**Commentary**
	This drilling tested the copper grade 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 continiutity 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. The results of this drilling programme were not used to update the 2020 block model.
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. 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 between 0.5 to 1. The principle 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-intergrows) 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 an 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 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.

<table>
<tr><th colspan="2">Section 2 Estimation and Reporting of Mineral Resources</th></tr>
<tr><th>Criteria</th><th>Commentary</th></tr>
<tr><td></td><td>


<table>
<tr><th>Schematic Kinsevere Stratigraphic Column</th><th>Domain code and name</th><th>Marker name + Code</th><th></th><th>Description</th><th>Katangan Correlates</th></tr>
<tr><td></td><td>DIPETA
Siltstones and carbonates</td><td></td><td></td><td>Silstones and carbonates on western margin of Central and Mashi Pits
Hydrogeoloigcally significant</td><td>Dipeta
R3</td></tr>
<tr><td></td><td>SDOL
Interbedded silcified dolomite and green siltstone</td><td>Green Siltstone
Silicified Dolomite
Structurally influenced CPSZ</td><td>GSL
SLD</td><td>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</td><td>Kambove Dolomite (R2.3) Upper CMN</td></tr>
<tr><td></td><td>LMU
Laminated Magnesitic Unit</td><td></td><td></td><td>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.</td><td>Kambove Dolomite (R2.3) Lower CMN</td></tr>
<tr><td></td><td>IDSH
Interbedded Dolomite and Shale</td><td>Upper Nodular</td><td>UNZ</td><td>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.</td><td></td></tr>
<tr><td></td><td>ICSL
Calcareous Siltstone with Shale</td><td></td><td></td><td>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</td><td>Shales Dolomit-iques R2.2 (SD)</td></tr>
<tr><td></td><td>LSH
Lower Shale</td><td>Middle Nodular
Grey Banded Shale
Lower Nodular
Structurally influenced</td><td>MNZ
GBS
LNU</td><td>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</td><td>RSF
D.Strat</td></tr>
<tr><td></td><td>RSL
RAT Siltstone</td><td>Structural contact</td><td></td><td>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</td><td>R.A.T
R1</td></tr>
<tr><td></td><td>HBX
Heterogeneous Breccia</td><td>Interp: Decollement</td><td></td><td>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.</td><td></td></tr>
<tr><td></td><td>DIPETA
Breccia, carbonates and siliciclastics</td><td>*Age of this unit is younger than RSL</td><td></td><td>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</td><td>Dipeta
R3</td></tr>
</table>
Figure 1: Kinsevere Mine Series Stratigraphy
</td></tr>
<tr><td>Drill hole information</td><td>• Within the database used, there are 1,615 Exploration drill holes (467 DD, 32 RC with DD tail and 1,116 RC) and 10,980 grade control drill holes (all RC).
• No individual drill hole is material to the Mineral Resource estimate and hence this geological database is not supplied.</td></tr>
<tr><td>Data aggregation methods</td><td>• 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.</td></tr>
<tr><td>Relationship between mineralisation width and intercepts lengths</td><td>• Mineralisation true widths are captured by interpreted mineralisation 3D wireframes.
• Most drilling was at 50° to 60° angles in order to maximise true width intersections.
• Geometry of mineralisation is interpreted as sub-vertical to vertical and as such current drilling allows true width of mineralisation to be determined.</td></tr>
</table>

<table>
<tr><th colspan="2">Section 2 Estimation and Reporting of Mineral Resources</th></tr>
<tr><th>Criteria</th><th>Commentary</th></tr>
<tr><td>Diagrams</td><td>

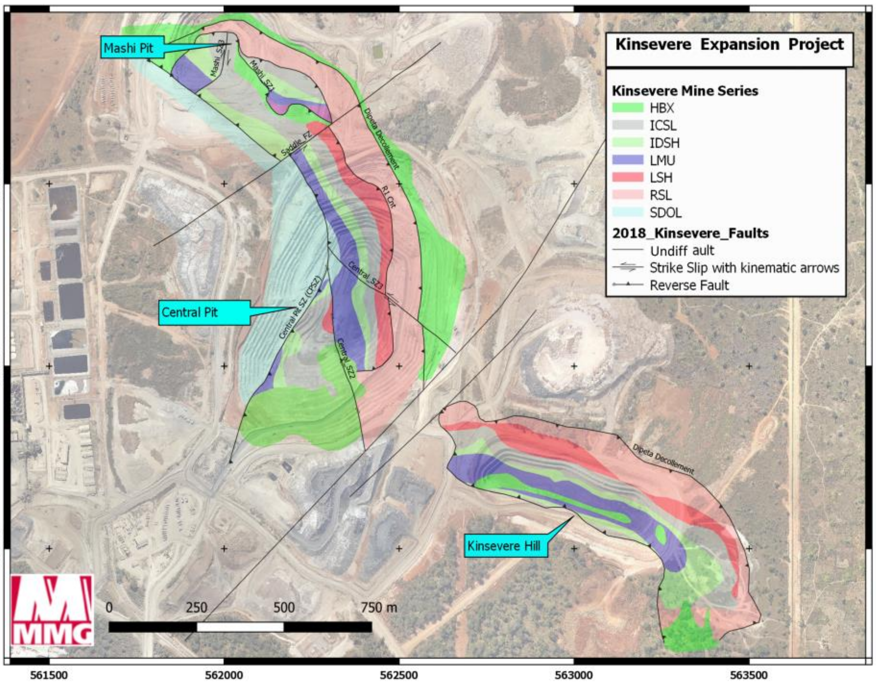


Figure 2: Plan view geology map of the Kinsevere deposit

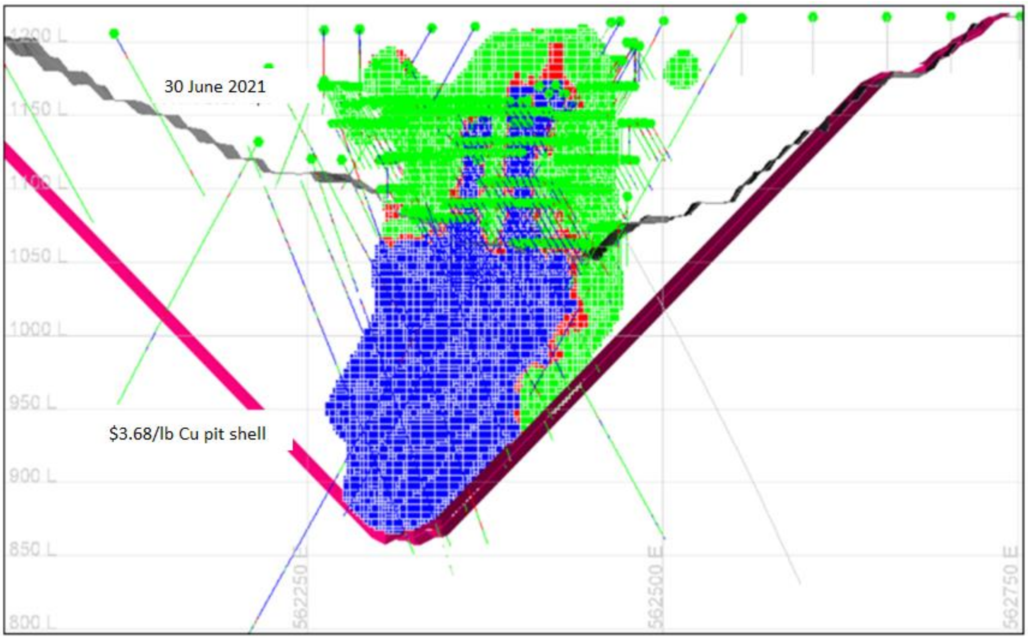


Figure 3: Cu Shell coded by Oxidation state (Green – Oxide / Red – TMO / Blue – Primary)-744250N Cross Section

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

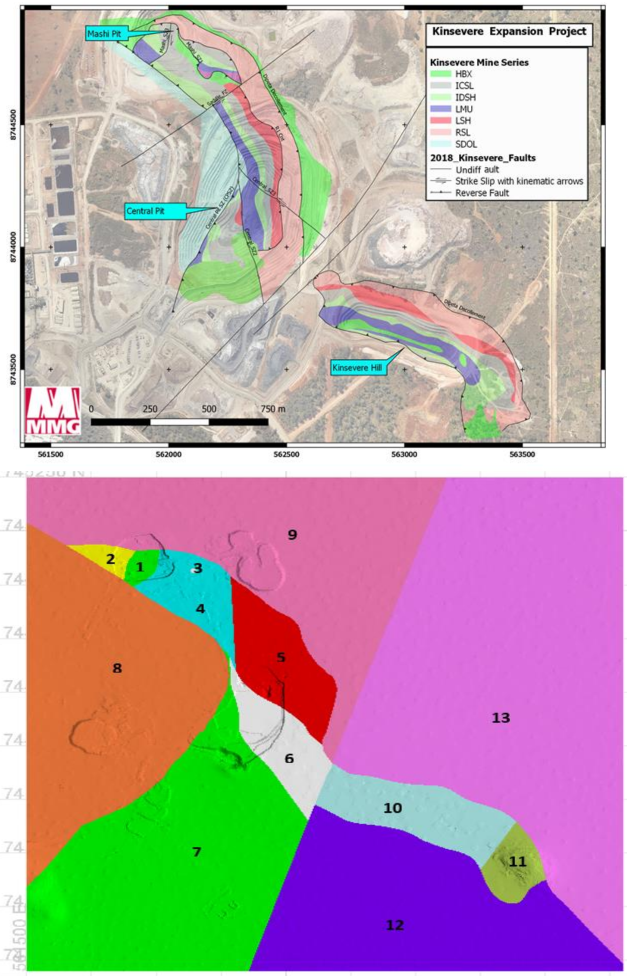
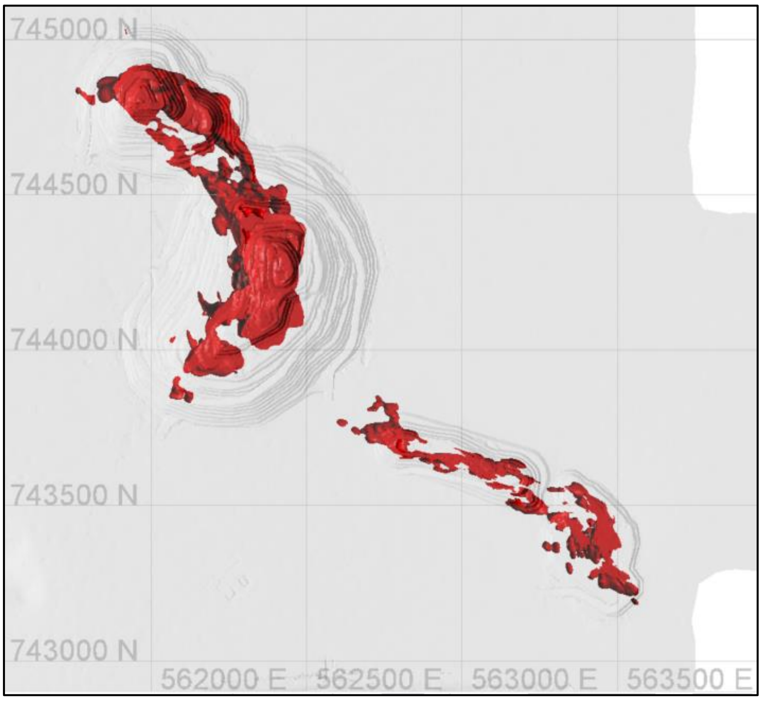
- This is a Mineral Resource Statement and is not a report on exploration results hence no additional information is provided for this section.

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

Section 2 Estimation and Reporting of Mineral Resources	
Criteria	**Commentary**
Other substantive exploration data	• This is a Mineral Resource Statement and is not a report on exploration results hence no additional information is provided for this section.
Further work	• The exploration focus will be within the Mine Lease and within a 50 km radius of the known deposit to explore for additional high-grade oxide material. • RC and DD drilling as part of near mine extension is ongoing.

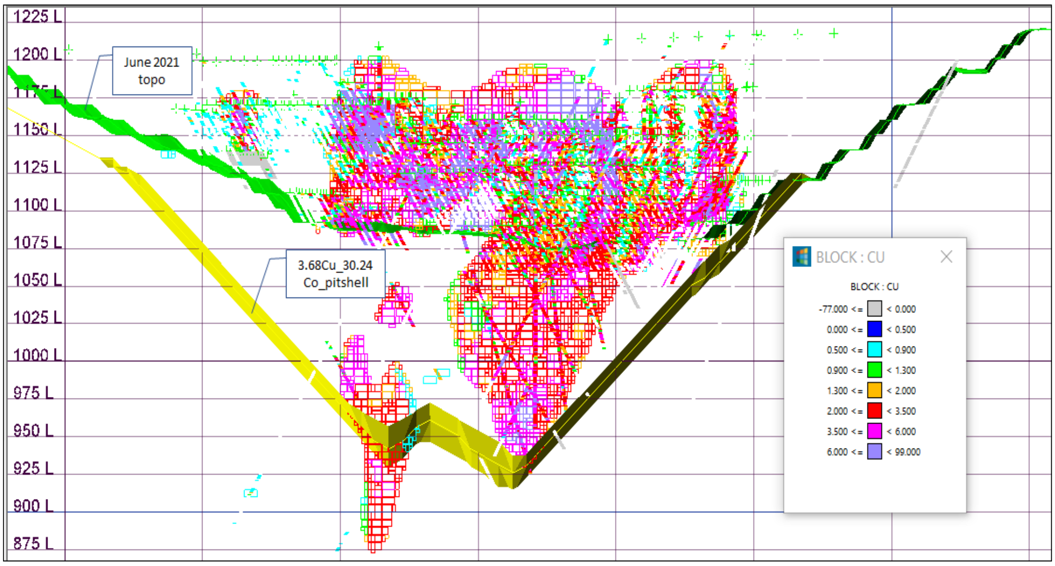
Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
Database integrity	• The following measures are in place to ensure database integrity: o Drillhole data (RC and DD) is stored in two SQL databases with front end access provided by Geobank software. o The grade control logging and assay data (RC) is managed by the onsite Geology team with support from the Operations and Technical Excellence database team in Melbourne. o The exploration/resource logging data (RC and DD) is managed by the onsite Resource team with assay loading and support provided by the Operations and Technical Excellence database team in Melbourne. o 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. o 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. o 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 is based at the Kinsevere Mine site and he is in charge of the mining geology, Resource modelling and near mine exploration. Discussions on the continuous understanding of the orebody with other geologists (mine and exploration), mine planning engineers and metallurgists occur on a daily basis.

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
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 or RSF). 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 at Kinsevere between 2018-2020 using the new Kinsevere Mine Series framework. Recent PFS and FS related diamond drilling, mapping/structural observations, photogrammetry and litho-geochemistry were integrated into the model. The model was last updated in Q1 2020. The resulting model is considered robust and reliable for mineralisation modelling and grade/estimation domaining. • Weathering domains were determined by correlating CuAS:CuT ratio data with observed copper mineral types. An Indicator Kriging approach was used to construct weathering domains (within the mineralised zone) based on specific CuAS:CuT ratio cut-offs. • 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%), Org_C (0.5% and 1.5%) and S (1.5%). • Cobalt was domained using a numeric indicator interpolant approach. A 0.07% Co cut-off grade was used to guide the interpolation. • Copper was domained using a numeric indicator interpolant approach combined with manual manipulation to align with geological and mineralisation trends and boundaries. Copper volumes were generated within the oxide and primary zones respectively and then unified to form one master copper shell. A 0.4% Cu cut-off grade was used to guide the interpolation in the oxide zone. A 0.3% Cu cut-off grade was used to guide the interpolation in the primary zone. • The magnitude of the acid soluble copper/total copper (CuAS /Cu) 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 > 0.5 o Transition and mixed (TMO) between 0.3 and 0.5 o Primary < 0.3 • The resulting weathering, lithology, fault, 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. This 2020 geology model was used to inform the 2020 block model which has been used to report the 2021 Mineral Resource estimate.

	 *Figure 4: Plan View of Kinsevere Lithology (top) and Fault Domains (bottom)*  *Figure 5: Plan View of Kinsevere Cu domain*
Dimensions	• The mineralisation strike length is approximately 1.3 km for the Tshifufia (Central) and Tshifufiamashi (Mashi) deposits while Kinsevere Hill has a 1km strike length. The

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
	mineralisation dips sub-vertically. Mineralisation extends to 400 m at depth, and it can be up to 300m in width. • The mineralisation outcropped at Kinsevere Hill and Mashi deposits.
Estimation and modelling techniques	• Estimation applied mostly kriging interpolation within domains as outlined further in this section and is considered appropriate for this style of mineralisation. • Mineral Resource modelling was conducted using Vulcan software. • Variograms updated for major elements including Cu, CuAS, Ratio, Ca, and Mg were based on the combination of weathering, lithology and fault domains. Variogram modelling in the 2020 Mineral Resource models wwere reviewed and updated based on new drilling and geological domains. • The key estimation assumptions and parameters are as follows: o Cu, CuAS, CuAS/Cu (RATIO), Co, Ca, Fe, Mg, Mn and S were estimated using Ordinary Kriging (OK). Uranium (U) was estimated by using an Inverse Distance to the power of 2 method (ID^2). o Local Varying Anisotropy (LVA) grade modelling was applied to capture the local varying grade distribution and geological continuity. o Indicator Kriging (IK) was used to determine oxide, mixed and primary sulphide domains based on the CuAS/Cu ratio. Leapfrog software was used to construct high grade domains for Cu, Ca, Mg, Al, organic Carbon and Co. o 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. o Wireframes and surfaces of the topography, mineralised domains, lithology and fault domains, together with IK weathering domain are used to tag the drill holes and are used for statistical analysis and grade estimation. o Grade estimation was completed using a hard boundary for Cu, CuAS/Cu (Ratio), Co, Ca, Fe, S, Mg, Mn and S. o A composite length of 2m was used applied. Any residual intervals less than half the composite interval were appended to the previous sample interval. o No assumptions have been made about the correlation between variables. All variables are comparably informed and independently estimated. o Search parameters for Cu, CuAS, RATIO, Co, Ca, Fe, Mg estimate 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 250 ppm were distance limited to 20m. o Three pass estimations were used to estimate the block model with the first and second estimation passes search radius uses 100% of the variogram range and the third pass estimation search radius uses 200% of the variogram range. Over 80% of the blocks are informed in the first pass. The second and third pass was set by reducing to the minimum sample estimated to the blocks. o Minimum of 2 to 4 and a maximum of 8 to 10 samples (depending on element and/or domain) for each estimate. o The search neighbourhood was also limited to a maximum of 3 samples per drill hole. o Discretisation was set to 4m x 8m x 2m (X, Y, Z).

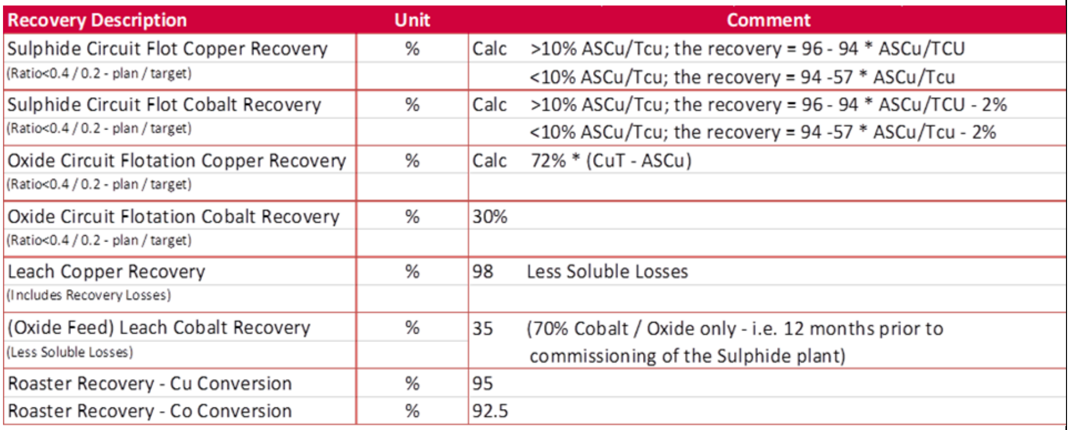
Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
	○ Kriging variance (KV), kriging efficiency (KE) and kriging regression slope (RS) of the Cu estimate were calculated during the estimation. • The 2019 and 2020 in-situ Mineral Resource models have been compared and show no major material difference, with metal content within 5%. Differences due to the revision of the Cu and Ratio cut-off grade (COG) for Transition (TMO) and Primary Cu and the subsequent re-interpretation in Transition and Primary Cu areas. • 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. In late 2017 a stockpile adjustment occurred based on detailed survey pick-ups. Generally, there was a volume and metal reduction. • Kinsevere does not produce any by-products hence no assumptions regarding the recovery of by-products are made in the estimate or cut-off and reporting. • Parent block size of the Kinsevere block model is 10m x 20m x 5m 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: ○ Visual checks in section and plan view against the drill holes. ○ Grade trend plots comparing the model against the drill holes. ○ Summary statistics comparing the model to the sample. ○ Global Change of support between the model to the sample support.
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 0.6% and an acid soluble to total copper ratio (Ratio) greater than or equal to 0.5. This is unchanged from the 2020 Mineral Resource. • The transitional and mixed ore (TMO) Mineral Resource has been reported above a total copper cut-off grade of 0.7% and a Ratio (CuAS/Cu) between 0.2 and 0.5. This is unchanged from the 2020 Mineral Resource. • The sulphide Mineral Resource 2021 has been reported above a total copper cut-off grade of 0.7% and a Ratio less than 0.2. This is unchanged from the 2020 Mineral Resource. • The reported Mineral Resources have also been constrained within a US$3.68/lb Whittle pit shell. Both the Sulphide/Primary and TMO cut offs have not changed in 2021 compared to 2020. 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 prospective for future economic extraction.  **N744100 Cross-section of Copper Mineral Resource model contained within the US$3.68/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$3.68/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 H2S04 acid leaching followed by solvent extraction and electro-winning (SXEW) to produce copper cathode. This process enables processing of oxide ores only. • TMO and sulphide ores will be processed on the condition the Kinsevere Expansion Project (KEP) is approved. As such, the criteria impacting the global resource cut-off grades and reportable pit shell inputs are based on the proposed KEP flowsheet and

Section 3 Estimating and Reporting of Mineral Resources

<table>
<tr><th>Criteria</th><th>Commentary</th></tr>
<tr><td></td><td>
infrastructure upgrades. The upgraded flowsheet will consist of the following changes:

Oxide pre-flotation circuit and leach tank modifications 2.2Mtpa
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
Estimated plant recoveries are as follows:


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

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.
Consideration of metallurgy and strike price has been included in the cut-off grade calculation flow sheet material type and in the construction of the US$3.68/lb pit shell.
No metallurgical factors have been applied to the Mineral Resource.

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

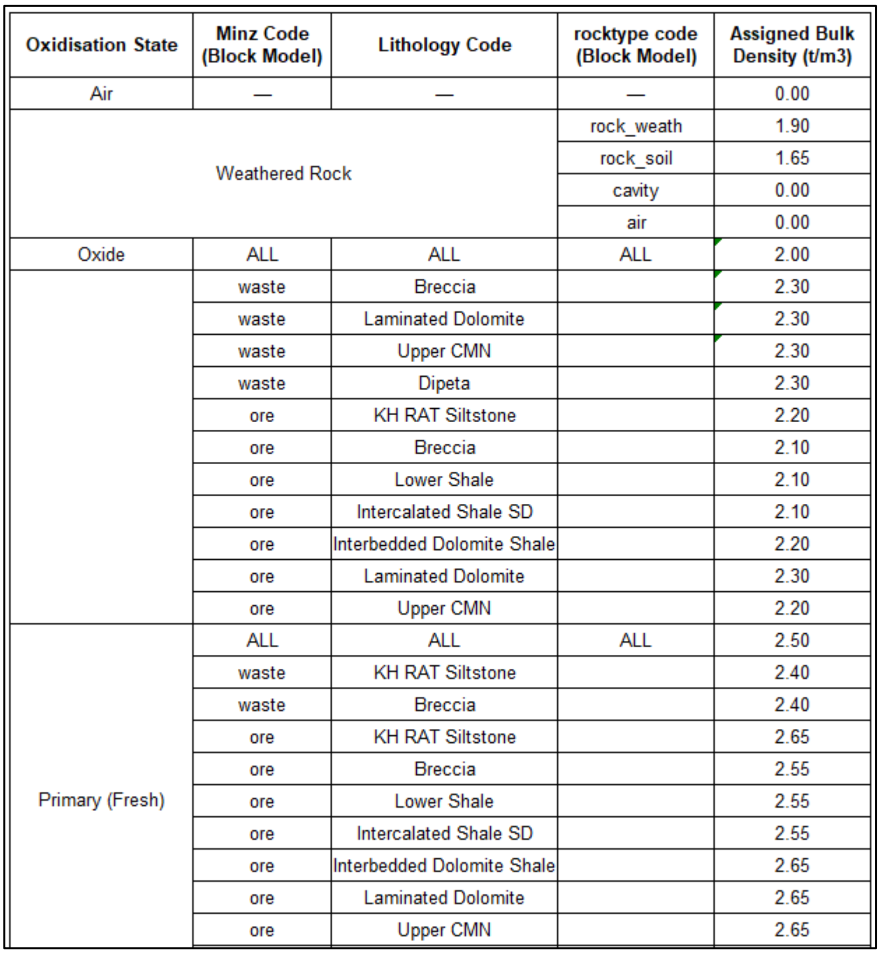
Environmental factors are considered in the Kinsevere life of asset work, which is updated annually and includes provisions for mine closure.
PAF and NAF criteria is controlled by the acid neutralising capabilities of the dolomitic CMN unit and the potential acid forming potential of the shale rich SD which is known to contain pyrite where a sulphur cut off is utilised.

</td></tr>
<tr><td>Bulk density</td><td>

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)

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

Section 3 Estimating and Reporting of Mineral Resources

<table>
<tr><th>Criteria</th><th>Commentary</th></tr>
<tr><td></td><td>
Average in-situ bulk density values were assigned to the blocks within each lithology-weathering domain.

<table>
<tr><th>Oxidisation State</th><th>Minz Code (Block Model)</th><th>Lithology Code</th><th>rocktype code (Block Model)</th><th>Assigned Bulk Density (t/m3)</th></tr>
<tr><td>Air</td><td>—</td><td>—</td><td>—</td><td>0.00</td></tr>
<tr><td colspan="3" rowspan="4">Weathered Rock</td><td>rock_weath</td><td>1.90</td></tr>
<tr><td>rock_soil</td><td>1.65</td></tr>
<tr><td>cavity</td><td>0.00</td></tr>
<tr><td>air</td><td>0.00</td></tr>
<tr><td>Oxide</td><td>ALL</td><td>ALL</td><td>ALL</td><td>2.00</td></tr>
<tr><td rowspan="11"></td><td>waste</td><td>Breccia</td><td></td><td>2.30</td></tr>
<tr><td>waste</td><td>Laminated Dolomite</td><td></td><td>2.30</td></tr>
<tr><td>waste</td><td>Upper CMN</td><td></td><td>2.30</td></tr>
<tr><td>waste</td><td>Dipeta</td><td></td><td>2.30</td></tr>
<tr><td>ore</td><td>KH RAT Siltstone</td><td></td><td>2.20</td></tr>
<tr><td>ore</td><td>Breccia</td><td></td><td>2.10</td></tr>
<tr><td>ore</td><td>Lower Shale</td><td></td><td>2.10</td></tr>
<tr><td>ore</td><td>Intercalated Shale SD</td><td></td><td>2.10</td></tr>
<tr><td>ore</td><td>Interbedded Dolomite Shale</td><td></td><td>2.20</td></tr>
<tr><td>ore</td><td>Laminated Dolomite</td><td></td><td>2.30</td></tr>
<tr><td>ore</td><td>Upper CMN</td><td></td><td>2.20</td></tr>
<tr><td rowspan="10">Primary (Fresh)</td><td>ALL</td><td>ALL</td><td>ALL</td><td>2.50</td></tr>
<tr><td>waste</td><td>KH RAT Siltstone</td><td></td><td>2.40</td></tr>
<tr><td>waste</td><td>Breccia</td><td></td><td>2.40</td></tr>
<tr><td>ore</td><td>KH RAT Siltstone</td><td></td><td>2.65</td></tr>
<tr><td>ore</td><td>Breccia</td><td></td><td>2.55</td></tr>
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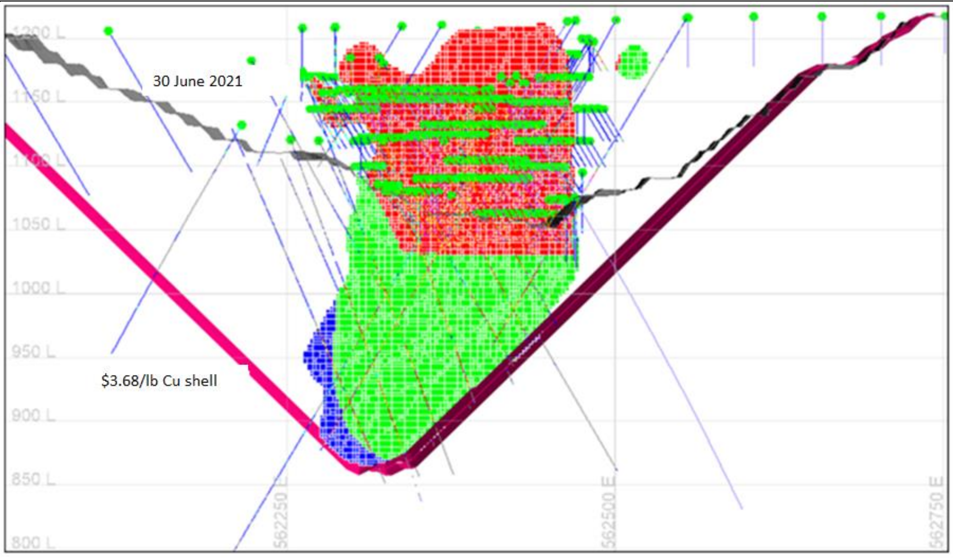
<tr><td>ore</td><td>Interbedded Dolomite Shale</td><td></td><td>2.65</td></tr>
<tr><td>ore</td><td>Laminated Dolomite</td><td></td><td>2.65</td></tr>
<tr><td>ore</td><td>Upper CMN</td><td></td><td>2.65</td></tr>
</table>
2020 Mineral Resource density assignments per lithology and weathering domains
</td></tr>
<tr><td>Classification</td><td>

Wireframes used for Mineral Resource classification are based on a combination of confidence in assayed grade, geological continuity and Kriging output (Kriging variance, efficiency and slope of regression, and drilling spacing).
In general, Measured is defined drilling spacing less 20m x 20m with the slope regression of the kriging estimation greater than 0.8. Indicated is 40m x 40m with the slope regression of kriging estimation at 0.65 to 0.8. Inferred has ranges up to 80m x 80m and the slope regression less than 0.65
The Mineral Resource classification reflects the Competent Persons view on the confidence and uncertainty of the Kinsevere Mineral Resource.

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

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)**
Audits or reviews	• Geological domains and resource estimation parameters were reviewed by internal MMG personnel and endorsed by the Competent Person. The review stated that the 2020 Mineral Resource Estimation parameters had been compiled in accordance with the JORC 2012 guidelines and is fit for the purposes of conducting mining studies and estimating Ore Reserves. • Recommendations were incorporated into the 2020 Mineral Resource. No significant issues have been identified.

<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>Discussion of relative accuracy / confidence</td><td>• 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, due to wider spaced drilling however the geological and grade interpretations are robust due to a high understanding of geological controls. The level of uncertainty is captured by the Indicated / Inferred Mineral Resource category.
• Close spaced Resource infill drilling in Kinsevere Hill South is required to gain an understanding of the complexity of grade distribution and the local mineralisation controls.
• 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. 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 define between 0.2 – 0.8. A wide spread of “ratio” grades distribution in the TMO could potentially over smooth the estimate, more work is needed to control this effect.
• The method of assigning bulk density values is similar to the 2019 Mineral Resource and is not considered to have any material impact on the reported tonnages. However, 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 a poor estimation. Further analysis on the potential combination between lithology and fault domains could improve the estimation.</td></tr>
</table>

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, Samson Malenga, 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 Reg No. 965948 and I am a Registered Professional Natural Scientist with the South African Council for Natural Scientific Professions (SACNASP) – Reg No 400181/06.
- 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 MMG Limited 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 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 my 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 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 2021* – with the author's approval. Any other use is not authorised.

08/10/2021

____________________________ Date: ____________________________

Samson Malenga, BSc. Hons (Geol.),MBL, Pr.Sci.Nat, FGSSA (No. 965948

This signature was scanned for the exclusive use in this document – the *MMG Mineral Resource and Ore Reserve Statement as at 30 June 2021* – with the author's approval. Any other use is not authorised.

Serge Djemo
Lubumbashi, DRC

____________________________ ____________________________

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 2020 Mineral Resources model.

The 2021 Kinsevere Ore Reserves are summarised in Table 10.

Table 10 Kinsevere Ore Reserves tonnage and grade (as at 30 June 2021)

Kinsevere Ore Reserves				**Contained Metal**	
	Tonnes (Mt)	**Copper (% Cu)**	**Copper (% CuAS[1])**	**Copper (kt)**	**Copper AS[1] (kt)**
Stockpiles					
Probable	7.0	1.6	1.3	115	88
Kinsevere Total	7.0	1.6	1.3	115	88

[1] AS= Acid Soluble

Cut-off grades were calculated at a US$3.28/lb copper price and are based on a Net Value Script considering gangue acid consumption. The cut-off grade approximates 1.3% CuAS for ex-pit material and 1.0% CuAS for existing stockpiles 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 2020 Ore Reserves are:

(i) Mining ceased in September 2020, the depletion of Oxide Low Grade stockpiles, since the cessation of mining, has reduced the availability to suitable stockpiles (material type and grade) to blend with remaining Black Shale material.

(ii) Potential Ex-Pit Oxide Processable Material would require approximately 6 months mining, however it is uncertain if the remobilistion of a mining contractor would be cost prohibitive.

(iii) Assumed copper price increased to US$3.28/lb in 2021 from US$3.23/lb in 2020.

(iv) Mine and stockpile depletion.

(v) Insufficient material of economic grade to blend with low ratio (<0.5 CuAS / Cu) Black Shale material.

(vi) Projected cash flows from Ore Reserves do not pay for the existing (30 June 2021) 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 2021

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. • All existing stockpiles have been considered for economic inclusion in the Mineral Resources and Reserves.
Site visits	• The Competent Person visited the site in August 2019 and in February 2020. The Competent Person has been unable to visit site due to COVID-19 restrictions, however, he has been in regular contact with site personnel regarding operational performance. • Each 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 visits 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. • 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$3.28/lb copper price and acid soluble to total copper ratio typically greater than or equal to 0.5. At a variable gangue acid consumption based on the equation GAC (kg/t) = 33.823 x %Ca + 2.713 x %Mg + 2.8. The following approximate COG's are applied: • 1.3% CuAS for ex-pit material. • 1.0% CuAS for existing stockpiles reclaim. • • The ex-pit COG estimates are based on a Net Value Script (NVS) calculation that incorporates commodity price assumptions, gangue acid consumption and costs associated with current operating conditions.

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
	• The NVS routine identifies material that is both suitable and potentially economic for processing in the Mineral Resources 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 modifying factors and economic valuation. • Kinsevere mine is an open pit operation that is mining and processing oxide copper ore. The operation is currently processing existing oxide stockpiles only, in-pit mining activities have currently ceased. • This mining method is appropriate for the style and size of the mineralisation. • No pit optimisation was conducted, as there is no study or mining tender prices to support the mining cost for mining Oxide Only pits. • 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 7% and 7% respectively in the 2019 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) has historically been typically in excess of 45m but is ~35m in some isolated areas during stage development. • No Inferred Mineral Resources material has been included in optimisation and/or Ore Reserves reporting. • All required infrastructure is in place.
Metallurgical factors or assumptions	• 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. • 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.

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
	• The reconciliation between expected and actual recovery is checked each month. The following table summarizes the outcomes for the last eight quarters.
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 2021 dry season. • Existing tailings storage facility (TSF 2) has design capacity to meet the 2021 Ore Reserves requirements. The TSF 2 is currently at RL 1290.6 metres. Designs exists that allow it to be elevated a further 14m.
Infrastructure	• The Kinsevere mine site is well established with the following infrastructure in place: ○ The plant is operational.

Period	Recovery of Acid Soluble Copper (%)	
	Predicted	Actual
Q3 2020	96.3	95.6
Q4 2020	96.3	96.4
Q1 2021	96.3	95.5
Q2 2021	96.3	96.4

- 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 35%, 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 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.

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
	○ 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. ○ The Ore Reserves do not require any additional land for expansion. ○ Tailings Storage Facility is 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.
Costs	• Kinsevere is an operating mine, historical costs have been used to inform the 2020 Kinsevere Budget (January 2021 to December 2021), with the exception of the contract mining costs and the Sulphide Processing Plant costs. • Given that mining operations are currently ceased, there is insufficient information to support a mining cost of the mining of the Oxide Only Pits. • Transportation charges used in the valuation are based on the actual invoice costs that MMG are charged by the commodity trading company per the agreement. • Royalties charges have been considered, approximating 6% of the Copper 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. • Since the final Copper product is copper cathode (Grade A non LME registered) there are no additional treatment, refining or similar charges. • 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 abovementioned costs.
Revenue factors	• For cost assumptions see section above – “Costs” • The assumed long-term copper price is US$3.28/lb. This price is 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 35% of the total feed. Internal studies are currently in progress, they identify opportunities whereby black shale is proposed to be processed up to 50% of the total feed by Q3 2023.

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
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. • 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. • Global copper 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 actual operating costs and the 2020 Kinsevere Budget. • Revenues are based on historic and contracted realised costs. prices are based on MMG's short term pricing forecast (2021 to 2025) with a long-term forecast of $3.28/lb Copper. • 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.
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 2020. 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. • 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.

<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>Other</td><td>• 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.</td></tr>
<tr><td>Classification</td><td>• 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 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% AsCu for Oxide material (AsCu / TCu > 0.5), is demonstrated to be economic to process, and is classified as Probable Ore Reserves.
• The Ore Reserves do not include any Inferred Mineral Resources (metal).</td></tr>
<tr><td>Audit or Reviews</td><td>• 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 2022 on the 2021 Ore Reserves.</td></tr>
<tr><td>Discussion of relative accuracy/ confidence</td><td>• The most significant factors affecting confidence in the Ore Reserves are:
○ Mining Dilution and Ore Loss and historic potential impact on current estimated stockpile grades.
○ Increase in operating costs for processing.
○ Effective management of both ground and surface water.</td></tr>
</table>

4.2.3 Expert Input Table

A number of persons have contributed key inputs to the Ore Reserves determination. These are listed below in Table 12.

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
Doug Corley, Principal Resource Geologist, formerly of Mining One Consultants (Melbourne)	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 & Capactiy
Ada Fang, Senior Analyst, Business Evaluation, 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 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 2021* – with the author's approval. Any other use is not authorised.

Dean Basile MAusIMM(CP) (#301633)

07/10/2021

Date:

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Signature of Witness:

Davron Lu
Melbourne, VIC

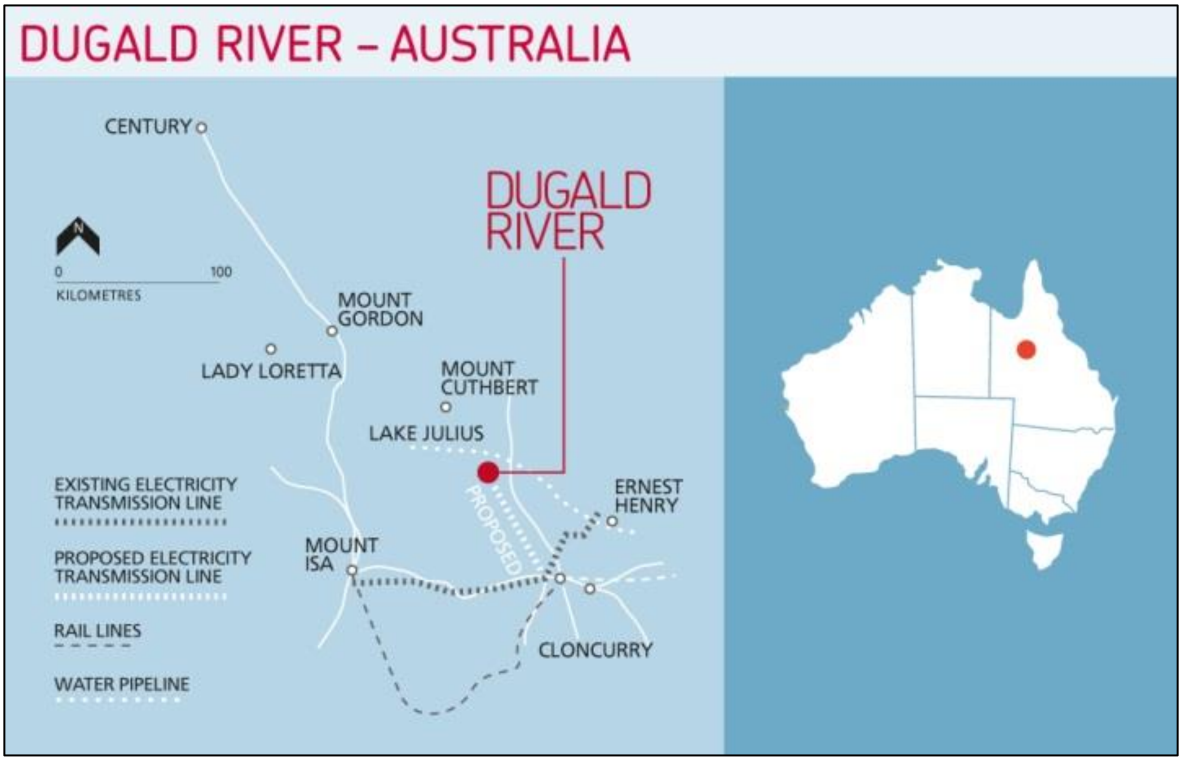
Witness Name and Residence: (e.g. town/suburb)

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 a 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 2021 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 2021 Mineral Resource has been reported above an A$142/t NSR *(net smelter return*) cut-off.

Table 13 2021 Dugald River Mineral Resource tonnage and grade (as at 30 June 2021)

Dugald River Mineral Resource											
							Contained Metal				
	Tonnes (Mt)	**Copper (% Cu)**	**Zinc (% Zn)**	**Lead (% Pb)**	**Silver (g/t Ag)**	**Gold (g/t Au)**	**Copper (kt)**	**Zinc (kt)**	**Lead (kt)**	**Silver (Moz)**	**Gold (MoZ)**
Primary Zinc[1]											
Measured	13		13.1	2.4	80			1,700	310	34	
Indicated	17		11.6	1.4	21			2,000	230	11	
Inferred	36		11.2	0.8	9			4,000	280	10	
Total	**66**		**11.7**	**1.3**	**26**			**7,700**	**830**	**55**	
Stockpiles											
Measured	0.05		10.8	2.1	57			5	1.0	0.08	
Total	**0.05**		**10.8**	**2.1**	**57**			**5**	**1.0**	**0.08**	
Total Primary Zinc	**66**		**11.7**	**1.3**	**26**			**7,700**	**830**	**55**	
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**	**7,700**	**830**	**55**	**0.02**

[1] $142/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 2021

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

Diamond drilling (DD) methods of varying sizes comprise the majority of 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. Once samples were selected by a geologist, the samples were marked and the allocated sample ID's stored in the database.
Approximately 10% of the dataset was sampled using RC drilling techniques; however, this was confined to pre-collar surface drilling and generally from regions outside of the mineralised zone.
Approximately 24% of the total drilled meters were sampled.
The Table below shows samples collected at Dugald River for use in the Mineral Resource model by drill type, hole size and sample type.

<table>
<tr><th>Drill Type</th><th>Hole Size</th><th>Sample Type</th><th>Metres</th><th>% of Total</th></tr>
<tr><td>DD</td><td>PQ</td><td>Whole Core</td><td>254.8</td><td>0.18%</td></tr>
<tr><td></td><td></td><td>UNK</td><td>230.16</td><td>0.16%</td></tr>
<tr><td></td><td>PQ3</td><td>1/2 Core</td><td>11</td><td>0.01%</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>1.40%</td></tr>
<tr><td></td><td></td><td>1/2 Core</td><td>992.34</td><td>0.68%</td></tr>
<tr><td></td><td></td><td>1/4 Core</td><td>295.63</td><td>0.20%</td></tr>
<tr><td></td><td></td><td>3/4 Core</td><td>396.28</td><td>0.27%</td></tr>
<tr><td></td><td></td><td>UNK</td><td>370.5</td><td>0.25%</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>5800.45</td><td>3.98%</td></tr>
<tr><td></td><td>NQ</td><td>Whole Core</td><td>2963.4</td><td>2.04%</td></tr>
<tr><td></td><td></td><td>1/2 Core</td><td>206.2</td><td>0.14%</td></tr>
<tr><td></td><td></td><td>1/4 Core</td><td>42</td><td>0.03%</td></tr>
<tr><td></td><td></td><td>UNK</td><td>315.8</td><td>0.22%</td></tr>
<tr><td></td><td>NQ2</td><td>Whole Core</td><td>66842.25</td><td>45.92%</td></tr>
<tr><td></td><td></td><td>1/2 Core</td><td>42998.87</td><td>29.54%</td></tr>
<tr><td></td><td></td><td>1/4 Core</td><td>51.19</td><td>0.04%</td></tr>
<tr><td></td><td></td><td>UNK</td><td>188</td><td>0.13%</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>0.83%</td></tr>
<tr><td></td><td></td><td>UNK</td><td>157.8</td><td>0.11%</td></tr>
<tr><td></td><td>BQ/BQTK</td><td>Whole Core</td><td>216.86</td><td>0.15%</td></tr>
<tr><td></td><td></td><td>1/2 Core</td><td>113.65</td><td>0.08%</td></tr>
<tr><td></td><td>LTK60</td><td>Whole Core</td><td>3783.19</td><td>2.60%</td></tr>
<tr><td></td><td></td><td>1/2 Core</td><td>2902.67</td><td>1.99%</td></tr>
<tr><td></td><td>UNK</td><td>Whole Core</td><td>1553.4</td><td>1.07%</td></tr>
<tr><td></td><td></td><td>1/2 Core</td><td>457.5</td><td>0.31%</td></tr>
<tr><td>Total DD</td><td></td><td></td><td>134,406.12</td><td>92.33%</td></tr>
<tr><td>RC</td><td>100mm & 150mm</td><td>Chips</td><td>1720</td><td>1.18%</td></tr>
<tr><td></td><td>5.75in</td><td>Chips</td><td>1659.6</td><td>1.14%</td></tr>
<tr><td></td><td>UNK</td><td>Chips</td><td>7792.3</td><td>5.35%</td></tr>
<tr><td>Total RC</td><td></td><td></td><td>11,171.90</td><td>7.67%</td></tr>
<tr><td>Grand Total</td><td></td><td></td><td>145,578.02</td><td>100%</td></tr>
</table>

There are no inherent sampling problems recognised.

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

<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>

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

</td></tr>
<tr><td>Drilling techniques</td><td>

Drilling used for the Mineral Resource started in 1969 and continued until present. Within the database used there are 3,363 drill holes (591 from surface {combination of RC and DD} and 2,772 DD underground), summarised in the table below.
Approximately 6% of the surface drilling data does not have drillhole diameters recorded.

<table>
<tr><th>Drill Type</th><th>DD Core/ RC</th><th>Total Metres</th><th>% of Total</th></tr>
<tr><td rowspan="10">DD</td><td>PQ3</td><td>18</td><td>0.00%</td></tr>
<tr><td>HQ</td><td>4187.48</td><td>0.82%</td></tr>
<tr><td>HQ2</td><td>5</td><td>0.00%</td></tr>
<tr><td>HQ3</td><td>5800.45</td><td>1.14%</td></tr>
<tr><td>NQ</td><td>3586.1</td><td>0.70%</td></tr>
<tr><td>NQ2</td><td>139925.46</td><td>27.44%</td></tr>
<tr><td>NQ3</td><td>1375.37</td><td>0.27%</td></tr>
<tr><td>BQ</td><td>206.86</td><td>0.04%</td></tr>
<tr><td>BQTK</td><td>123.65</td><td>0.02%</td></tr>
<tr><td>LTK60</td><td>6684.56</td><td>1.31%</td></tr>
<tr><td colspan="2">DD Sub Total</td><td>161,912.93</td><td>31.75%</td></tr>
<tr><td rowspan="3">RC</td><td>100&150</td><td>1720</td><td>0.34%</td></tr>
<tr><td>5.75in</td><td>1659.6</td><td>0.33%</td></tr>
<tr><td>NQ2</td><td>7802.3</td><td>1.53%</td></tr>
<tr><td colspan="2">RC Sub Total</td><td>11,181.90</td><td>2.19%</td></tr>
<tr><td rowspan="5">No Recovery</td><td>HQ</td><td>445.7</td><td>0.09%</td></tr>
<tr><td>HQ3</td><td>7169.03</td><td>1.41%</td></tr>
<tr><td>NQ2</td><td>217478.14</td><td>42.64%</td></tr>
<tr><td>NQ3</td><td>736.44</td><td>0.14%</td></tr>
<tr><td>LTK60</td><td>1351.94</td><td>0.27%</td></tr>
<tr><td colspan="2">No Recovery Sub Total</td><td>227,181.25</td><td>44.55%</td></tr>
<tr><td rowspan="9">No Sampling</td><td>5.75in</td><td>134.6</td><td>0.03%</td></tr>
<tr><td>PQ3</td><td>169</td><td>0.03%</td></tr>
<tr><td>HQ</td><td>2311.8</td><td>0.45%</td></tr>
<tr><td>HQ3</td><td>1301.56</td><td>0.26%</td></tr>
<tr><td>NQ</td><td>746.5</td><td>0.15%</td></tr>
<tr><td>NQ2</td><td>102313.98</td><td>20.06%</td></tr>
<tr><td>NQ3</td><td>19.75</td><td>0.00%</td></tr>
<tr><td>BQTK</td><td>575.22</td><td>0.11%</td></tr>
<tr><td>LTK60</td><td>2126.68</td><td>0.42%</td></tr>
<tr><td colspan="2">No Sampling Sub Total</td><td>109,699.09</td><td>21.51%</td></tr>
<tr><td colspan="2">Grand Total</td><td>509,975.17</td><td>100%</td></tr>
</table>
<p>DD = Surface diamond drilling, RC= Reverse circulation drilling</p>

Some historical holes (drilled prior to 1969) and other listed drill holes were not used for this estimate due to poor sample quality and reliability.

</td></tr>
<tr><td>Drill sample recovery</td><td>

Recovery recorded during core logging was generally 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 database to measure the degree of jointing or fractures or core loss in the sample.
Shearing and broken ground zones are located at the edges of the mineralisation zone and are not associated with locations of good grade intercepts. There is no

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

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	relationship between core loss and mineralisation or grade - no sample bias has occurred due to core loss within broken/sheared ground.
Logging	• 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. • 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). • A representative sample of mineralised core is stored at -4°C in refrigerated containers to minimise oxidation for metallurgical testing. Non-mineralised core is stored on pallets in the 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 database.
Sub-sampling techniques and sample preparation	Diamond Drill Core Sampling • Prior to 2007, various sub-sample techniques and sample preparation techniques were used for DD drilling including whole core sampling, ¾ (generally restricted to metallurgical samples) and ½ and ¼ (for general samples) core, where sample length is generally 1 metre. • Since 2007 DD core was halved using a circular diamond saw, density tested before being sent to analytical testing. Sample lengths were cut as close to 1m as possible while respecting geological contacts. • From 2016 whole core is sent for analysis for any in-fill drilling campaigns. • For DD, the standard sampling length is 1m with a minimum of 0.2m and a maximum of 1.5m within the mineralised zone was determined by lithology and visible mineralisation (i.e., samples were taken up to but not across lithological contacts, and obvious high-grade zones were sampled separately from lower grade intervals). • 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. RC Samples • The sample collection protocol for RC grade control drill holes has typically been as follows; o RC samples are collected from a cyclone at 2m intervals from pre–collar surface drilling. o 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

Section 1 Sampling Techniques and Data

Criteria	Commentary

  - 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).
  - Historical RC programmes were designed to test the 'un-mineralised' hanging wall material in DD pre-collars. 2m bulk composites stored at the drill site were sampled using the spear method.

<u>Sample Preparation</u>

- 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:
  - Until 2016, the sample was jaw crushed, 50% split,
  - Since 2016, all samples jaw crushed, then 100% re-crushed using a Boyd crusher, 70% nominal passing 3.15mm
  - The sample was rotary split with 500-800g retained and pulverised to 85% passing 75µm.
  - All rejected material was collected and saved (Coarse – jaw crushed product, collected 2010 to 2016).
  - Pulps were then sent to ALS Brisbane for analysis.
- For the 2007/2008 programme, 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, however a similar procedure is assumed.
- Various laboratories have been used over time and have been summarised in the table below (over 89% of all assays have been through the ALS laboratories).

Date Range	Laboratory	Number of samples	% of Total
2020-2021	ALS	22749	15.9%
2019-2020	ALS	16803	11.7%
2010 - 2019	ALS	79828	56.6%
	GENALYS	439	0.3%
2001 - 2009	ALS	13142	9.2%
	UNK	96	0.1%
Prior to 2000	AAL	234	0.2%
	AMDEL	4551	1.3%
	Aminya	224	0.2%
	ANALABS	1887	1.3%
	PILBARA	2175	1.5%
	UNE	7	0.0%
	UNK	1323	0.9%
Grand Total		143,458	100%

- Prior to 2013, measures taken to ensure sampling is representative of the in-situ material collected included:
  - Field duplicates (quarter core) were sampled at a rate of 1 per 20 samples (approximately 4 per drill hole).
- Up to 2015 duplicate sampling was performed by selecting from returned coarse rejects and resubmitted to ALS for analysis.
- Since 2015, duplicates were taken by the laboratory every 20th sample alternating between a duplicate taken at the primary crushing stage or the pulverisation stage. Batches that return standard values above three standard deviations (3SD) are failed

Section 1 Sampling Techniques and Data

Criteria	Commentary

and all or part of the batch is re-analysed by the Laboratory (ALS). Analysis of these duplicate results indicate no bias and therefore the samples are deemed to be representative of the mineralisation.

- 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 of these analyses are considered total.
    - Since 2010, the four acid the digestion process used (ALS Brisbane) is as follows:
    - Approximately 0.25g of sample catch 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. This takes the digest to incipient dryness (digest is not "baked")
    - 50% HCl is added and warmed
    - Made to 12.5ml using 9.5ml 11% HCl.
- The table below summarises the analytical method and digest used for all assays in the Mineral Resource estimate. Most of the assays have been determined by using a four-acid digest with an ICP OES read.

Base Metal Analysis	**Analytical Method**							**Total**
	AAS	**ICP**	**ICP AES**	**ICP MS**	**ICP AES MS**	**XRF**	**Unknown**	
Four Acid	2,622	403	125,394	49	3471			131,939
Aqua Regia	5		3982	1	7			3,995
Aqua Regia Perchloric			4,290					4,290
Mixed Acid			355	166				521
Perchloric	175		88				98	361
Unknown	309	16				10	2017	2,352
Total	**3,111**	**419**	**134,109**	**216**	**3478**	**10**	**1,609**	**143,458**

-

- Gold assaying at Dugald River began in 1988 the hanging-wall copper lode was discovered. Various different assay methods have been used and are summarised in the table below. Most gold assays were done by ALS (Townsville), by Fire assay with an AAS read, with a 50g charge used since 2008. At total of 579 gold assays were completed using Aqua Regia with an AAS read (completed between 1990 and 1996).

Gold Analysis		Analytical Method					**Total**
		AR-AAS	FA-AAS 30g	FA-AAS 40g	FA-AAS 50g	Unknown	
Laboratory	AAL	96					96
	ALS		12,084		14,504		26,596
	AMDEL	413	407	408	57	80	1,365
	ANALABS	70	763		1777		2610
	PILBARA				212		212
	Aminya						12
	UNK					144	144

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	<table><tr><td>**Total**</td><td>579</td><td>13254</td><td>408</td><td>16550</td><td>236</td><td>**31,035**</td></tr><tr><td>Percentage of Total (%)</td><td>1.59%</td><td>42.71%</td><td>1.31%</td><td>53.33%</td><td>0.76%</td><td>100.00%</td></tr></table> • These assaying techniques are considered suitable for the Dugald River Mineral Resource. • 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. • Certified reference materials (CRM) and blanks (coarse) were each submitted at the rate of 1:20. The selection and location of standards and blanks in the batch sequence is decided by the geologist on the basis of the logged mineralisation. • Batches that fail quality control criteria (such as standards reporting outside set limits) are entirely re-analysed.
Verification of sampling and assaying	• Assays were 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 (Geobank) by experienced geologists (geological information such as lithology and mineralisation) and field technicians (geotechnical information such as recovery and RQD). Where data was deemed invalid or unverifiable it was excluded from the Mineral Resource estimation. • No adjustments to the assay data have been performed during import into the Geobank Database.
Location of data points	• All drill hole collars have been surveyed by licensed surveyors. Surface collars were surveyed in MGA94 and then converted to local mine grid. Underground drill holes are marked up by surveying a collar pin at the designed collar point location which is supplied by the Geologists. 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 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. • 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. o 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 was used. Interference due to magnetite and pyrrhotite has been an issue.

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	○ 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. ○ True North seeking azimuth tool has been used since 2017, to limit the effect of magnetic declination corrections. • The grid system used is MGA94, 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 surface drilled drill holes. 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 cost involved in drilling deeper sections. • Drill spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource estimation procedure and classification applied. For Measured Resources, drill spacing of approximately 20m x 20m (in addition to other estimation quality criteria) is required. For Indicated Resources, drill spacing of approximately 50m x 50m is required. For Inferred Resources, a drill spacing of 100m x 100m is considered acceptable. • 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. Hence drilling is conducted on east-west and west-east directions to intersect mineralisation across-strike. Underground infill drilling is completed from stockpile locations underground with drill holes at varying orientations completed to test the mineralisation. The orientation of these 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.

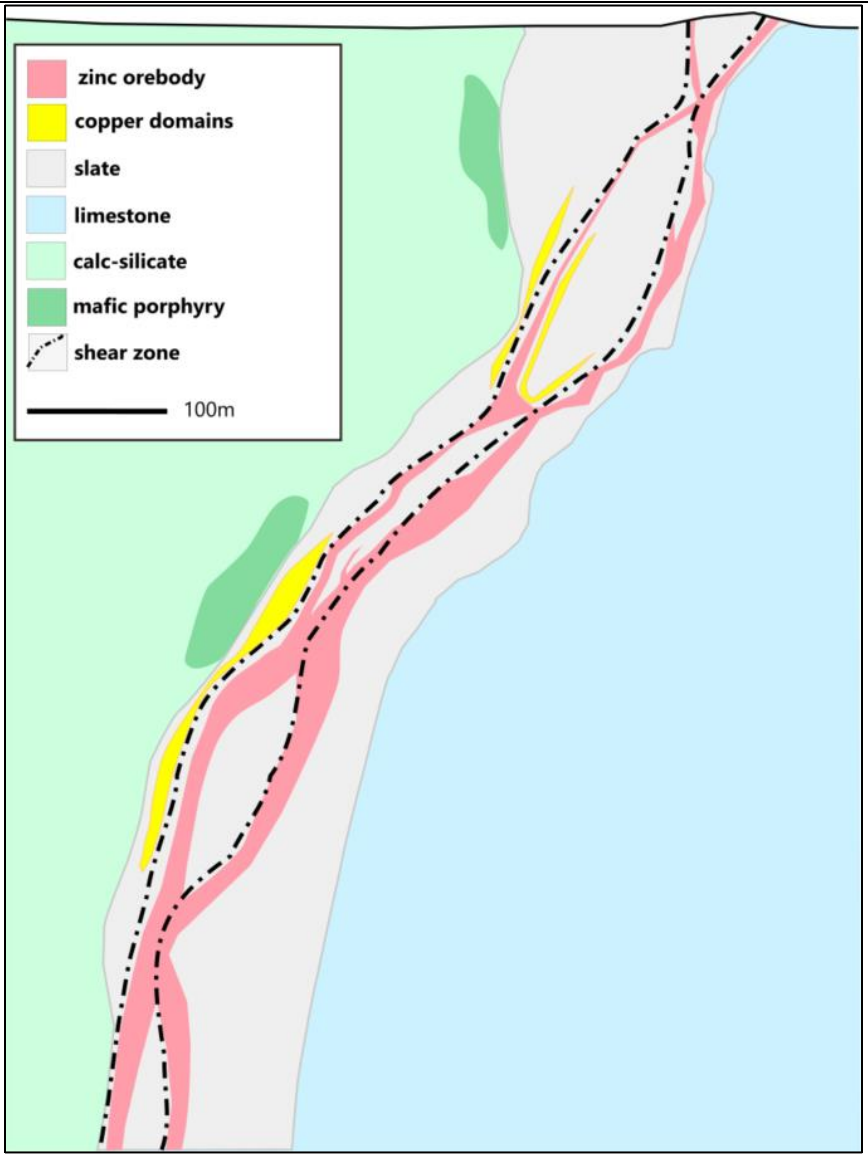
Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
Sample security	• Measures to provide sample security include: ○ Adequately trained and supervised sampling personnel. ○ Well maintained and ordered sampling sheds. ○ Cut core samples stored in numbered and tied calico sample bags. ○ Calico 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.
Audit and 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 platform. ○ Internal audits and checks were performed at this time. Any suspicious data was investigated and rectified or flagged and excluded. • No external independent audits have been performed on the database. The Competent Person has verified the information in the drill hole database back to source assay, collar and down hole survey data for approximately 10% of the data collected in the preceding 12 months with no issues identified. • 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.

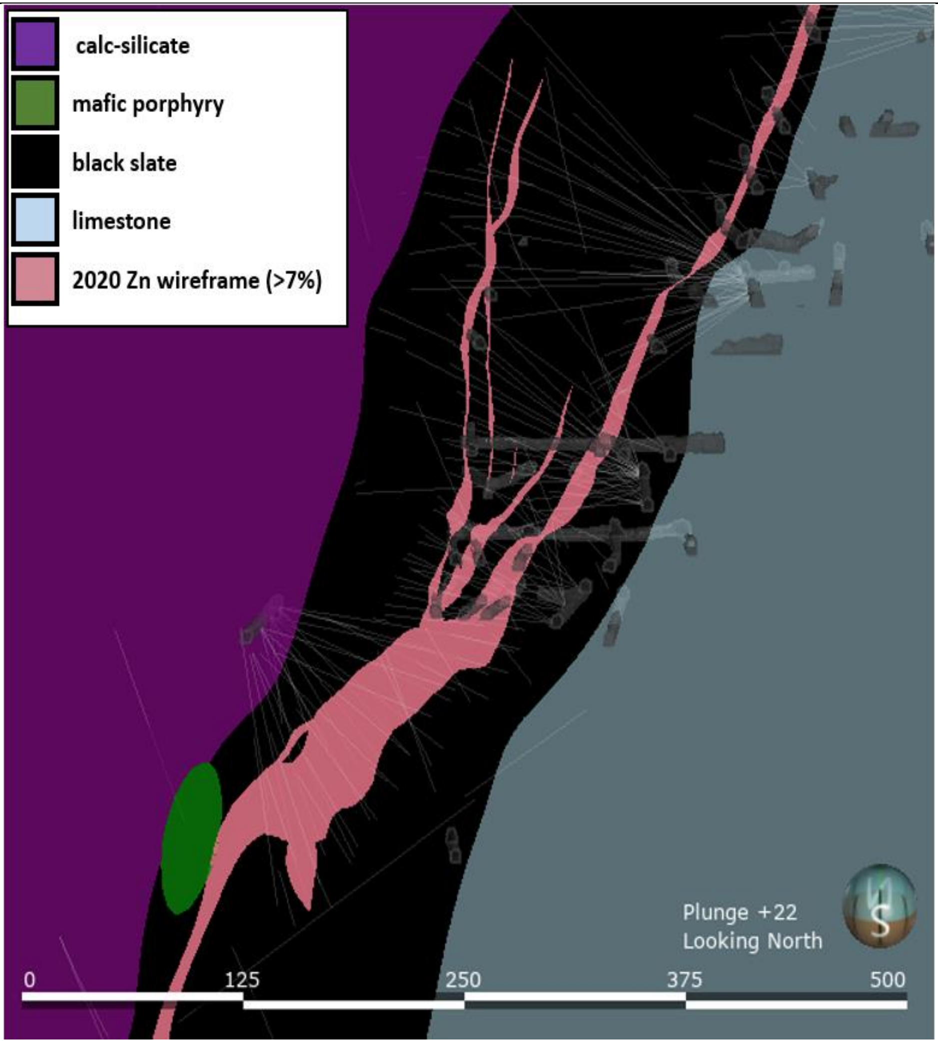
Section 2 Reporting of Exploration Results	
Criteria	**Commentary**
Mineral tenement and land tenure status	• The Dugald River Mining Leases are wholly owned by a subsidiary of MMG Limited. • MMG holds one exploration lease and one mineral development lease in addition to the 40 mining leases on which the Dugald River Mineral Resource is located. EPM12163 consists of 3 sub-blocks and covers an area of 20 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

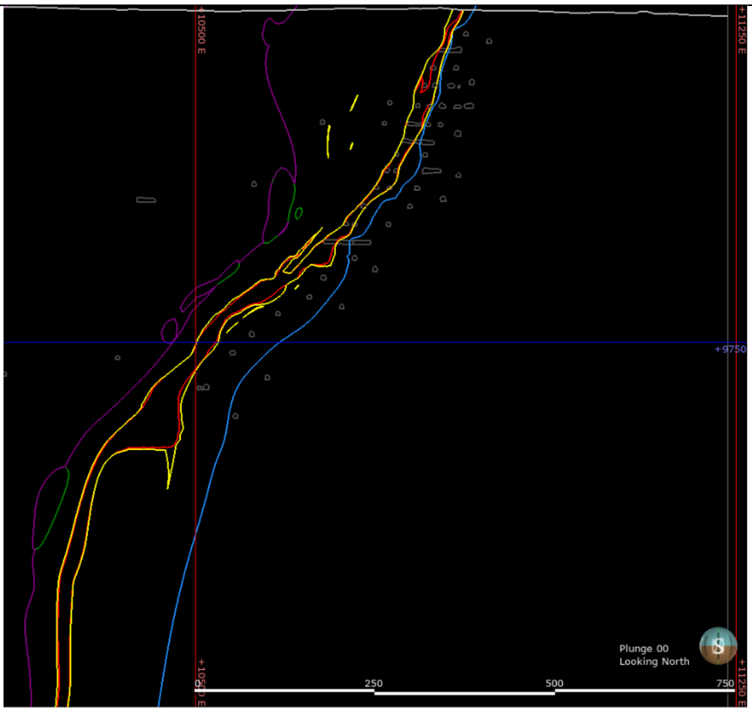
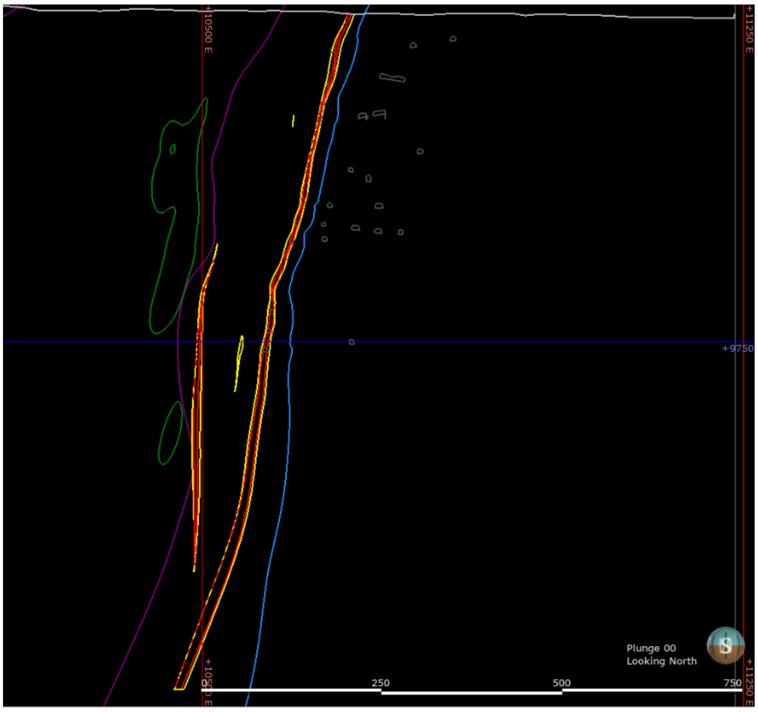
Section 2 Reporting of Exploration Results	
Criteria	**Commentary**
	○ ML90049-ML90051 ○ ML90211-ML90213 ○ ML90218 ○ ML90220 ○ ML90230 ○ ML90237 • There are no known impediments to operating in the area and the leases are maintained in good administrative condition.
Exploration done by other parties	• 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 style of mineralisation is a sedimentary and shear hosted base metal deposit. The main sulphides are sphalerite, pyrite, pyrrhotite and galena with minor arsenopyrite, chalcopyrite, tetrahedrite, pyrargyrite, marcasite and alabandite. • The deposit is located within a 3 km-4 km along strike north-south trending high strain domain named the Mount Roseby Corridor and is hosted by steeply dipping mid Proterozoic sediments of the Mary Kathleen Zone in the Eastern Succession of the Mount Isa Inlier. The host sequence is composed of the Knapdale Quartzite and the Mount Roseby Schist Group (which includes the Hanging wall calc-silicate unit, the Dugald River Slate and the Lady Clayre Dolomite). The sequence is an interbedded package of greenschist to amphibolite grade metamorphosed carbonate and siliclastic lithologies. • 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 at a low angle. 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 geometry of the deposit consists of the boudinaged main lens, which pinches and swells in thickness along strike and to depth. It is recognised that the previously modelled hangingwall and footwall domains (1A, 2, 3, 4 and 5) 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 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.
Drill hole information	• 3,363 drill holes and associated data are held in the database (combination of RC and DD). • No individual hole is material to the Mineral Resource estimate and hence this geological database is not supplied.
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.
Relationship between mineralisation width and intercepts 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.

Section 2 Reporting of Exploration Results

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

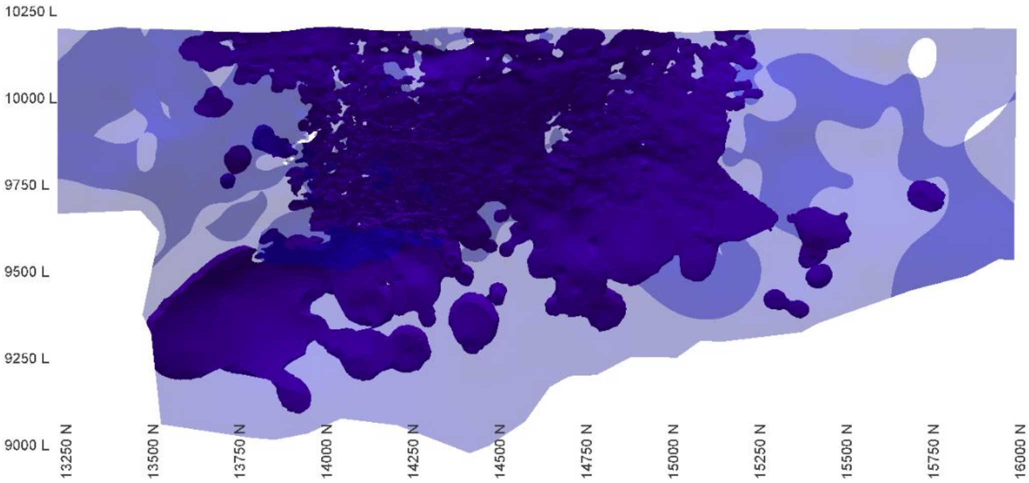
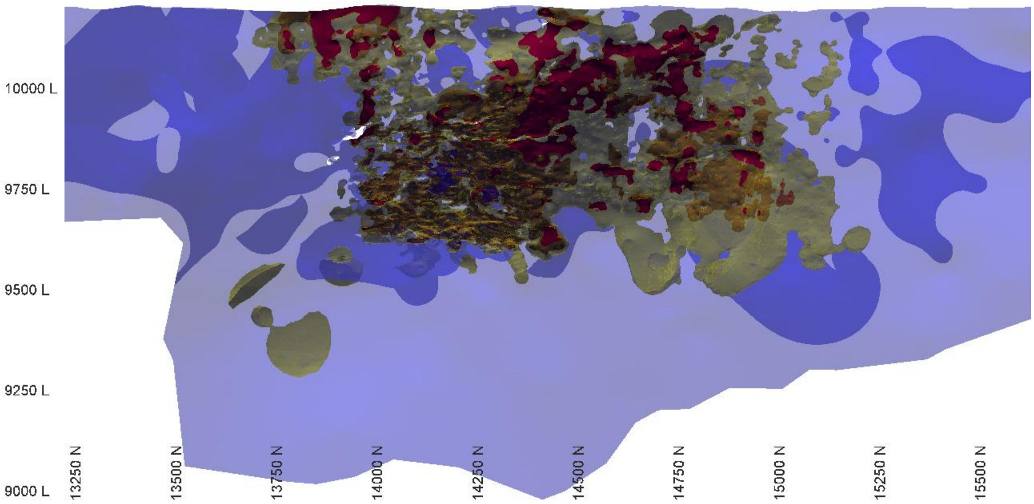
Section 2 Reporting of Exploration Results	
Criteria	**Commentary**
	 **Inclined cross-section through the South Mine with the 2020 high-grade Zn wireframe (salmon polygon), drilling (pale grey traces) and development (light grey 3D mesh). A HW lens can be seen splitting from the main orebody and anastomoses due to the influence of graphitic shears (not displayed).**

Section 2 Reporting of Exploration Results	
Criteria	**Commentary**
	 **Cross section 14110mN of the South Mine looking north – 1% zinc composite wireframes (yellow) with 7% zinc composite wireframes (red), development (grey), limestone contact (blue), calc-silicate contact (purple), mafic porphyry contact (green) with topography (grey).**  **Cross section 14960mN of the North Mine looking north – 1% zinc composite wireframes (yellow) with 7% zinc composite wireframes (red), development (grey), limestone contact (blue), calc-silicate contact (purple), mafic porphyry contact (green) with topography (grey).**

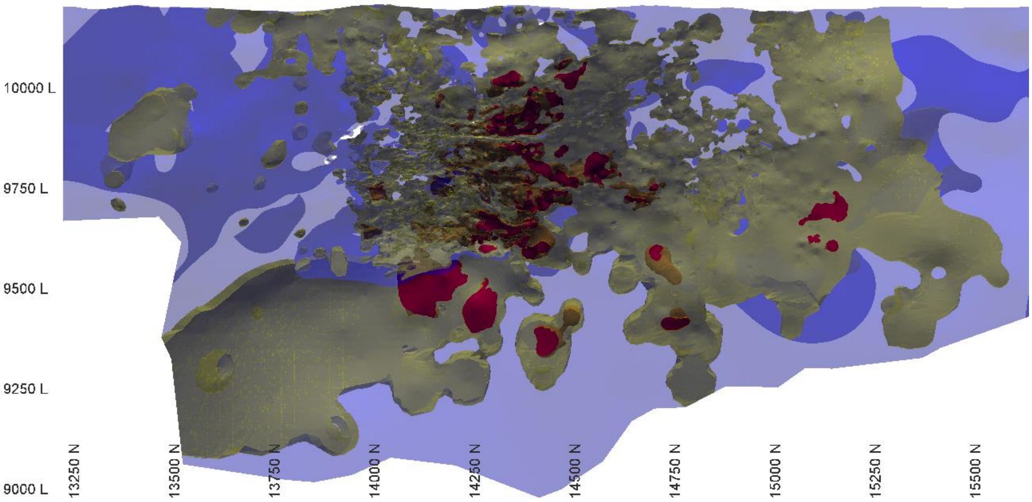
Section 2 Reporting of Exploration Results	
Criteria	**Commentary**
Balanced reporting	- This is a Mineral Resource Statement and is not a report on exploration results hence no additional information is provided for this section.
Other substantive exploration data	- This is a Mineral Resource Statement and is not a report on exploration results hence no additional information is provided for this section.
Further work	- MMG plans to continue to improve geological confidence and Mineral Resource classification through infill drilling programmes ahead of the mining schedule.

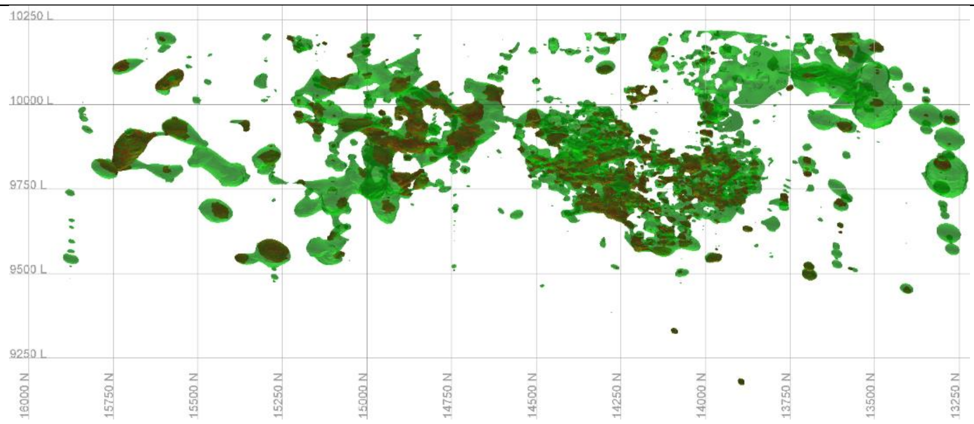
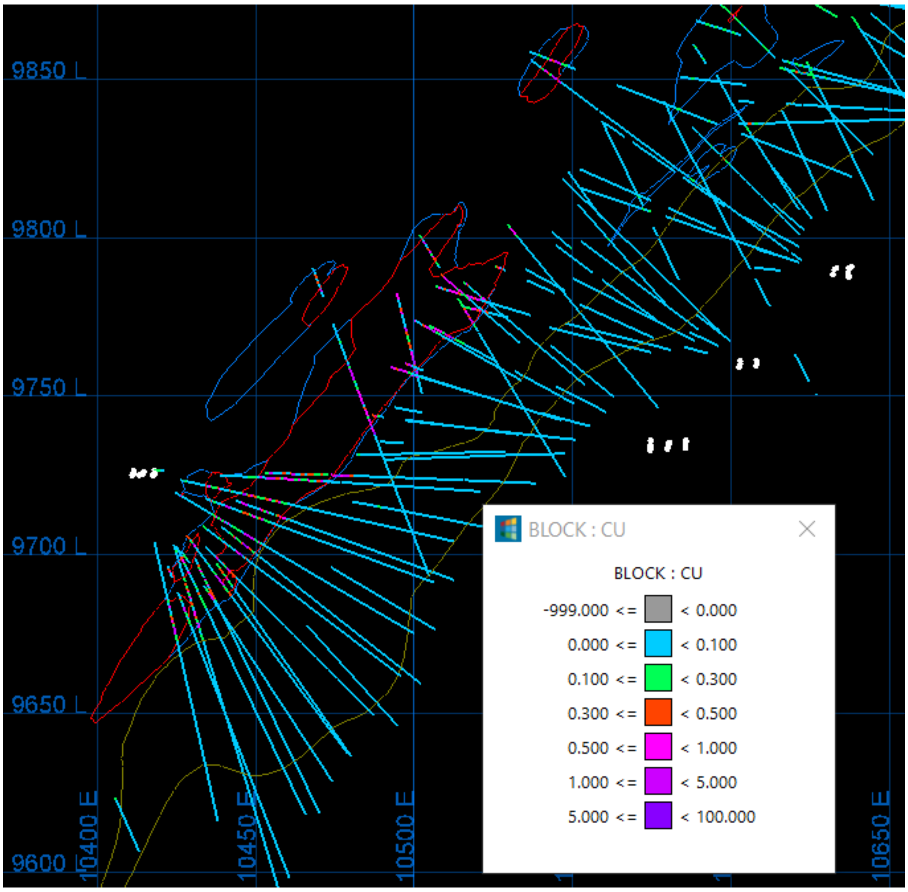
Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
Database integrity	- The following measures are in place to ensure database integrity: o All data is stored in an SQL database that is routinely backed up. o All logging is digital and directly entered into the onsite Geobank database. Data integrity is managed by internal 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: o Database validation procedures are built in the database system to manage accurate data entry during logging and collection of data. o Prior to use in the Mineral Resource the data was checked externally by running Datamine macros on the drill hole file to check for end of hole depths, and sample overlaps. o Manual checks were carried out by reviewing the drill hole data in plan and section views.
Site visits	- The Competent Person visited site during early 2021 that included the following: o Review of the geological controls, wireframe interpreation and methodology as applied in the 2021 Mineral Resource work. o Review of orebody knowledge advancements since 2017. o Review of modelling and estimation advancements since 2019. o Review of the drill hole pacing used to define the Mineral Resource. o Inspection of geological mapping plans and underground workings. o Inspection of drill holes and mineralisation intercepts. o Inspection of data collection, sampling and data management protocols in place. o Review and verification of the results of the QAQC program for the previous 12 months. o Review of the drilling supervision and management processes.
Geological interpretation	- The mineralisation is modelled as a continuous lenses of zinc mineralisation that anastomoses, splits and merges. The model is based on zinc grade distribution and geological logging of mineralisation style. Composites of 1% zinc for the low-grade wireframe and 7% zinc for the high-grade wireframe form the basis of the model.

Section 3 Estimating and Reporting of Mineral Resources

Criteria	Commentary
	○ The mineralisation zone is divided into a high- and low-grade zinc domains. The high-grade domain is further sub-divided to include an internal waste domain. ○ The high-grade domain is defined by high zinc grades associated with the massive sulphide assemblages. The high-grade domain boundary was modelled using the 7% zinc composites and geological continuity. ○ The lower grade mineralisation captures an assemblage of sulphide stringers and shoots of discontinuous massive and breccia sulphide textures. The low-grade domain boundary was modelled using the 1% zinc composites and geological continuity. ○ An internal dilution domain was created to capture material below 6% zinc within the high-grade domain boundary. • Separate domains were modelled for Pb, Ag and Mn mineralisation, after exploratory data analysis (EDA) have shown these elements are possibly due to a secondary mineralisation event; and are contained throughout the main zinc lens.  **Long section (looking West) of the Pb domains within the Zn orebody with low grade (blue) and high grade (purple)**  **Long section (looking West) of the Ag domains (red to yellow) within the Zn low grade orebody (blue)**

Section 3 Estimating and Reporting of Mineral Resources

Criteria	Commentary
	 **Long section (looking West) of the Mn domains (red to yellow) within the Zn low grade orebody (blue)** • A reinterpretation of the hangingwall copper domain was carried out to coincide with the February 2021 Mineral Resource model update. Two types of Cu mineralisation occur; one occurs in the hangingwall of the South Mine deposit and HW Zn lens position and is associated with Au and locally high in Au and Mo. The second type occurs between the South Mine between the main lens and HW lens with lower Au but associated with Co which is locally very elevated (>1%). • The hangingwall Cu-Au mineralisation occurs primarily as chalcopyrite within the mica schist but can extend into the mafic porphyry and black slate. 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 with albite-chlorite-white mica-epidote-silica altered mica schist and as matrix cement in milled breccias, (similar to the Zn orebody). 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. • The second Cu-Co type mineralisation occurs at the margins of intensely 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 cobaltiferous pyrite.

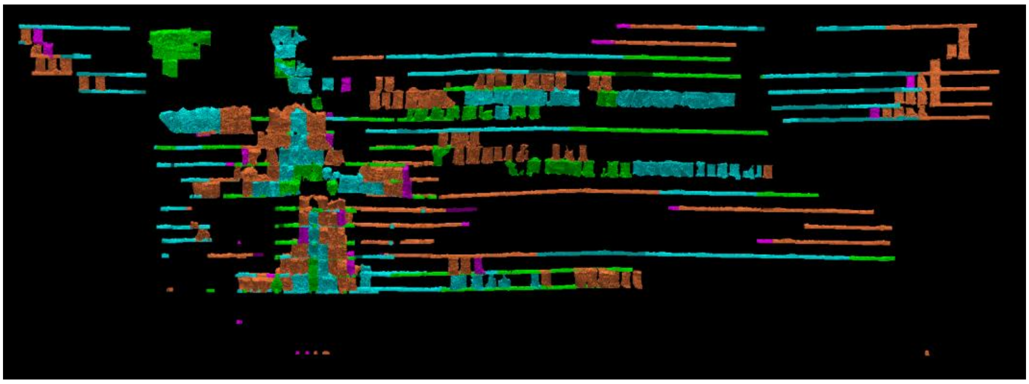
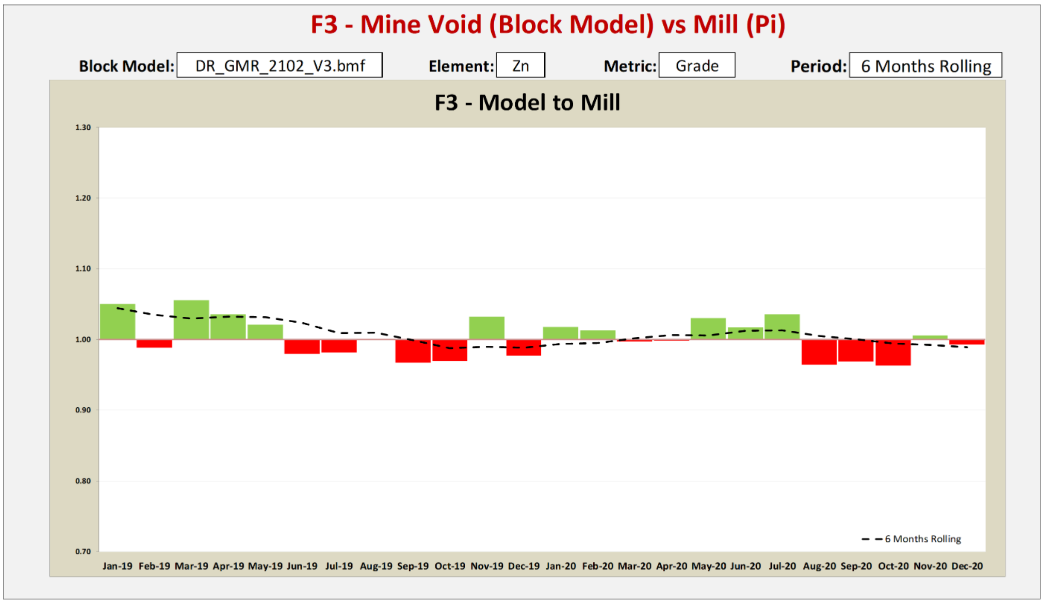
Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
	 **Long-section (looking East) Dugald River Copper Wireframes. HGCU – Red and LGCU – Green wireframe.**  **Cross-section (looking North) from panels 3-4B showing 2021 hanging wall HGCU wireframe (red outlines) and LGCU wireframe (blue outlines); based on the current geological understanding of Dugald River deposit. The 2021 HGZN Wireframe interpretation showing in green outlines.** • Underground mapping of development drives for both access and ore drives were also used in assisting with the geological interpretation. • Globally the Dugald River deposit follows a reasonably predictable lens of mineralisation but with short-range (10m to 20m-scale) variations associated with

<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>localised structures that are suitably defined by close-spaced drilling within the Measured Mineral Resources.</td></tr>
<tr><td>Dimensions</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>Estimation and modelling techniques</td><td>• Mineral Resource modelling was completed using both Isatis and Vulcan software applying the following key assumptions and parameters:
o The drillhole database was composited to 1m downhole lengths in Vulcan software with a residual applied during the compositing process. The composite length selected is considered appropriate for the style of mineralisation and mining method.
o The grade distributions of the composited samples within each mineralised domain were analysed for the existence of extreme values using a combination of log histogram and cumulative log probability plots. For those domains with extreme values present, grade caps were applied with values greater than the selected ‘cap value’ being set to the grade cap value and used in the estimation. The impact of the grade caps on the average grade of the domain and the CV of the domain were assessed and deemed acceptable
▪ Zn HG domain has a grade cap applied of 35.0% Zn,
▪ The Zn LG domain has a grade cap applied of 15.0% Zn,
▪ The Pb HG domain has a grade cap applied of 15.0% Pb,
▪ The Pb LG domain has a grade cap applied of 2.0% Pb,
▪ The Ag HG domain has a grade cap applied of 600ppm Ag,
▪ The Ag MG and LG domains have a grade cap applied of 200ppm Ag.
o Variograms were modelled within each of the respective domains using the capped composites, with these variogram ranges then applied to the search parameters used in the estimation.
o Separate variographic analyses were performed for Zn, Pb, Ag, Mn, Fe, S, bulk density, Cu, Au and total carbon, within each of their respective mineralised domains.
o No assumptions have been made about the correlation between variables. All variables are comparably informed and independently estimated.
o A block model was created in Vulcan 3D modelling software.
▪ A parent block size was set at 2.5m x 12.5m x 12.5m (xyz) with sub-cells of x=0.5m, y=1.25m, z=1.25m. Sub-cells were assigned parent block values. The parent block size assumes mining selectivity at the stope level.
▪ In areas of close-spaced drilling (10 x 20m), the parent block size was set to 2.5m x 6.25m x 6.25m (xyz) with sub-cells of x=0.5m,</td></tr>
</table>

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
	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. o 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. o Separate estimations were performed for each element within their respective mineralised domains. o Hard boundary contacts were used to select samples used to estimate blocks in each of the mineralised zinc 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. o Interpolation was undertaken generally in three passes, although a fourth pass was applied if the third pass failed to adequately fill the blocks within the mineralisation domains: ▪ Pass 1 was set at approximately half the variogram range in the major and semi-major directions with a minimum of 6 and a maximum of 20 samples used. ▪ Pass 2 was set at the variogram range in all three directions within a minimum of 6 and a maximum of 18 samples used. ▪ Pass 3 was at twice the variogram range with the minimum number of samples reduced to three and a maximum of 18 samples used. ▪ If required, Pass 4 was set at three times the variogram range with the same number of samples used as for the third pass. ▪ All four passes had a maximum of 3 samples per drill hole limit applied. o Octant or sector method was generally not applied to the Ordinary Kriging estimate o Block discretisation of 2 x 8 x 8 was applied. o Grades within the internal and surrounding waste domains have been estimated using similar parameters to the mineralisation. o 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. o 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. o Deleterious elements include manganese and total carbon have been estimated in the block model. Ancillary elements estimated include Mn, Fe and S. • Assumptions have been made regarding the recovery of all by-products in the NSR used to report the Mineral Resource. • 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.

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
	• 2021 block model validation included the following steps: o Comparison against the previous 2020 block model including visual comparison of plans and cross-sections, tonnes grade curves, cumulative probability plots and trend plots. o Comparison against drillhole data using visual comparison of plans and cross-sections, statistics by domain, cumulative probability plots and swath plots. o The most significant changes between the two models involved the copper estimation. The high and low grade copper mineralisation wireframes used in the 2021 Mineral Resource estimate utilised a different modelling method which was developed to minimise the degree of extrapolation during the modelling and also to treat as zero, the unsampled intervals. This has resulted in a significant change in mineralised volume for the copper.
Moisture	• Tonnes in the model have been estimated on a dry basis.
Cut-off parameters	• The Mineral Resource is reported above an A$142/t NSR (net smelter return) cut-off. The selection of the A$142/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 planned to be 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.
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.

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
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 27,078 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) o Sphalerite content A = 1.5*Zn% o Galena content B = 1.15*Pb% o Pyrrhotite/Pyrite content C = (Fe%-(0.15*Zn%))*1.5 o Gangue D = 100-A-B-C o SG of sphalerite = 3.8 o SG of Galena = 7.3 o SG of Pyrrhotite/pyrite = 4.6 o SG of gangue = 2.573 o Fe content in Sphalerite = 10% • A bulk density of 2.75 g/cm^3 has been assumed for the waste host domain.
Classification	• 2021 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: o Measured: < 20m drill spacing, RS>0.85 plus grade control drilling. o Indicated: > 20m to <100m drill spacing, RS<0.6. o Inferred: > 100m drill spacing, within mineralised domain • 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.
Audits or reviews	• An internal MMG review has been carried on the 2020 Mineral Resource estimate. This involved personnel from both Corporate and Dugald River sites. No material items to the Mineral Resource have been identified. • An external review was completed in 2019 by AMC however this was on the previous geological understanding, wireframing and modelling processes prior to the 2020 Mineral Resource.

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. - Mine void data (development pickups and stope CMS's) were collated for the period July 2018 to January 2021 to be used to reconcile the block model. - Development voids were taken from survey as-builts and split by locations trucked as ore and waste. - The stope void was determined by CMS and the tonnes and grade split by the monthly bogging percentages from Pitram.  **Long-section looking west. Mined void data by period - July-Dec 2018 in green, 2019 in blue, 2020 in orange and January 2021 in pink.** - F3 factors were produced by dividing the monthly mill tonnes, zinc grade and zinc metal by the monthly mined void tonnes, zinc grade and zinc metal, including the change in stockpile material. - The F3 factors were calculated monthly and as a 6-month rolling average.  Block Model: DR_GMR_2102_V3.bmf Element: Zn Metric: Grade Period: 6 Months Rolling **F3 reconciliation factors by month and 6 month rolling for mined voids from Jan 2019 to Dec 2020 using the 2021 Mineral Resource estimate.**

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
	- The mine void to mill factors indicate the DR_GMR_2102_V3.bmf is a good predictor of Zn grade over the two-year period from Jan-2019 to Dec-2020. Monthly deviation of +/-5% and 6 months rolling within 1% variation for Zn. - The mine void to mill factors indicate the DR_GMR_2102_V3.bmf is an acceptable predictor of Pb grade over the two-year period from Jan-2019 to Dec-2020. Monthly deviation of +/-15% and 6 months rolling within 10% variation for Pb. - The mined void compilation will be expanded to cover the life of mine as part of ongoing reconciliation efforts.

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, Richard Buerger, 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 of The Australian Institute of Geoscientists.
- 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 2021* – with the author's approval. Any other use is not authorised.

01/10/2021

Date:

Richard Buerger MAIG (#6031)

This signature was scanned for the exclusive use in this document – the *MMG Mineral Resource and Ore Reserve Statement as at 30 June 2021* – with the author's approval. Any other use is not authorised.

Cael Gniel
Melbourne, VIC

Signature of Witness:

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

5.3 Ore Reserves – Dugald River

5.3.1 Results

The 2021 Dugald River Ore Reserves are summarised in Table 15.

Table 15 2021 Dugald River Ore Reserve tonnage and grade (as at 30 June 2021)

Dugald River Ore Reserves							
2021					**Contained Metal**		
	Tonnes (Mt)	**Zinc (% Zn)**	**Lead (% Pb)**	**Silver (g/t Ag)**	**Zinc (kt)**	**Lead (kt)**	**Silver (Moz)**
Primary Zinc[1]							
Proved	12	11.0	2.1	70	1,300	250	26
Probable	12	10.1	1.3	18	1,200	160	7
Total	**24**	**10.6**	**1.7**	**44**	**2,500**	**410**	**33**
Stockpiles							
Proved	0.05	10.8	2.1	57	5	1.0	0.1
Total	**0.05**	**10.8**	**2.1**	**57**	**5**	**1.0**	**0.1**
Total	**24**	10.6	1.7	44	**2,500**	**410**	**33**

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 2020 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.
- Silver grades in Panel 4B continue to be higher than previously intersected in the wider spaced drilling.

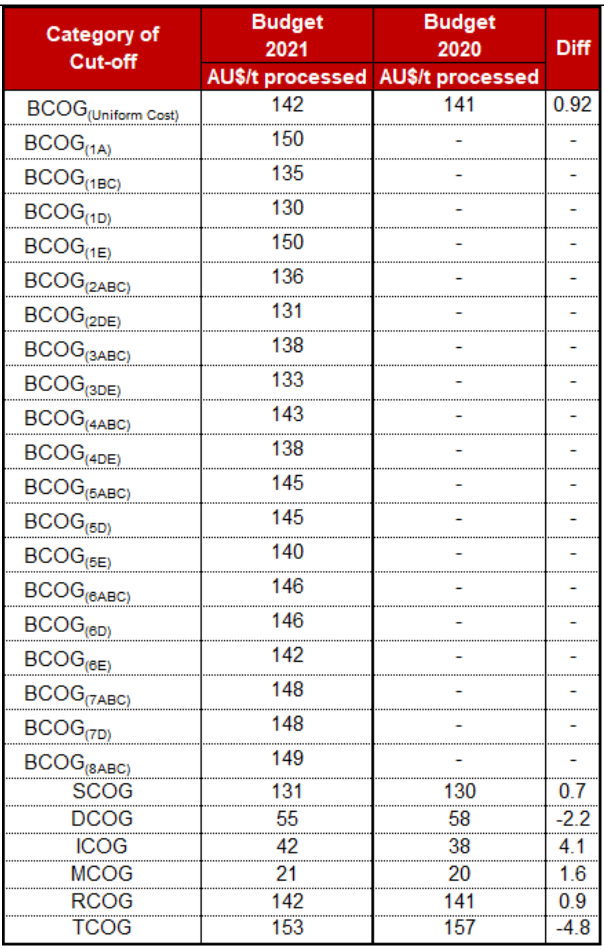
5.3.2 Ore Reserves JORC 2012 Assessment and Reporting Criteria

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 2021

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 February 2021 Mineral Resources model. (DR_GMR_2102_V3.dm) • 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 2021 Geotechnical Equivalent Linear Overbreak Slough (ELOS) model was used to estimate the HW thickness, tonnes and grade of the planned dilution applied to the 2021 stope shapes.
Site visits	• The Competent Person for the Dugald River Ore Reserves visited the site during 2020/2021 reporting period in March 2021, prior to Covid19 hot spot interstate travel restrictions. 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 Asset planning.
Cut-off parameters	• The breakeven cut-off grade (BCOG) and Mineral Resources cut-off grade (RCOG) have been calculated using 2021 Budget costs. • The BCOG 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 2.05 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 both BCOG and RCOG is to the mine gate and includes the 2021 sustaining capital for the 2021 Ore Reserves. • Infill diamond drilling has been included as part of the sustaining capital. • For 2021 Ore Reserves (OR) and Life of Mine (LoM), the break-even cut-off grades (BCOG) 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 2021	Budget 2020	Diff
	AU$/t processed	AU$/t processed	
BCOG$_{\text{(Uniform Cost)}}$	142	141	0.92
BCOG$_{\text{(1A)}}$	150	-	-
BCOG$_{\text{(1BC)}}$	135	-	-
BCOG$_{\text{(1D)}}$	130	-	-
BCOG$_{\text{(1E)}}$	150	-	-
BCOG$_{\text{(2ABC)}}$	136	-	-
BCOG$_{\text{(2DE)}}$	131	-	-
BCOG$_{\text{(3ABC)}}$	138	-	-
BCOG$_{\text{(3DE)}}$	133	-	-
BCOG$_{\text{(4ABC)}}$	143	-	-
BCOG$_{\text{(4DE)}}$	138	-	-
BCOG$_{\text{(5ABC)}}$	145	-	-
BCOG$_{\text{(5D)}}$	145	-	-
BCOG$_{\text{(5E)}}$	140	-	-
BCOG$_{\text{(6ABC)}}$	146	-	-
BCOG$_{\text{(6D)}}$	146	-	-
BCOG$_{\text{(6E)}}$	142	-	-
BCOG$_{\text{(7ABC)}}$	148	-	-
BCOG$_{\text{(7D)}}$	148	-	-
BCOG$_{\text{(8ABC)}}$	149	-	-
SCOG	131	130	0.7
DCOG	55	58	-2.2
ICOG	42	38	4.1
MCOG	21	20	1.6
RCOG	142	141	0.9
TCOG	153	157	-4.8

Mining factors or assumptions	• A detailed design of the 2021 OR was used to report Mineral Resources conversion to an Ore Reserve. • The 2021 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 2021 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 upto 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**
	o Transverse SLOS, for stopes where the orebody thickness lends itself to sequential stope extraction retreating along cross-cuts. o Crown pillar SLOS, for the top level of each panel where stoping occurs directly below a previously mined area. o 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 2021 Mineral Resources model (DR_GMR_2102_V3_ENG.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 US/AU 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 Hangingwall (HW) o Minimum waste pillar between parallel stopes of 7.5m o A BCOG associated with the appropriate mine zone, applied to create initial stope shapes. • 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: o Floor 0.15 m, Backs 0.5 m and Wall fill ranges from 1 m to 1.5 m dilution. o Recoveries for stope types were set as Longitudinal 90%, Modified AVOCA / Core & Shell with rib pillars 75% and Crown stopes 50%-90%, • Development grades were diluted by the application of a grade factor of 95% to the development grade estimated from the block model. • No Inferred Mineral Resource grades have been included in the Ore Reserves. • 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 at 30 June 2021, 8,621m of decline has been mined, along with a further 63,011m m of lateral development (excluding 2264m of paste development). • 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;

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
	○ 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 ○ 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 ○ 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. ○ 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. ○ 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. On each return shaft collar there is an exhaust fan drawing approximately 270-300m^3/s. • There is also a secondary RAR system in the north and south mines comprising of LHW and 3.0-3.5m raisebored 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 includes 3 twin-boom jumbos, 1 cable bolting rig, 6 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. %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 (2023+) = 63%

Section 4 Estimation and Reporting of Ore Reserves

Criteria	Commentary

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 = -11.36 + 1.721 x $\%C_{PF\ Feed}$ + 0.2126 x $\%C_{PF\ Recovery}$
    - Carbon recovered to carbon concentrate:

      $\%C_{PF}$ Recovery = 100 x (24/ $\%C_{PF\ Feed}$) x ($\%C_{PF\ Feed}$ -2.4)/(24-2.4)
    - Lead recovered by the lead circuit:

      Pb Cct %Pb Rec = 15.911 ln ($Pb/Zn_{PF\ Feed}$) + 96.4953
    - Lead recovery factor:

      Pb Rec Factor (Long Term 2023+) = 1.012

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 = 1.008 + 0.363 x PF %Zn Loss + 0.386 x PF %Pb loss
- Zinc recovered to carbon concentrate:

  PF %Zn loss = -9.521 + 1.508 x $\%C_{PF\ Feed}$ + 0.15106 x $\%C_{PF\ Recovery}$
    - Lead recovered to carbon concentrate:

      PF %Pb Loss = -11.36 + 1.721 x $\%C_{PF\ Feed}$ + 0.2126 x $\%C_{PF\ Recovery}$
    - Lead circuit silver recovery

      Pb cct %Ag Rec (wrt PF tail) = -0.0926 x $Ag_{PF\ Feed}$ + 7.19 x $\%Pb_{PF\ Feed}$ + 0.6058 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% =

$\%Zn_{Zn\ con}$ = $\%Zn_{Sphalerite}$ x $\%Sphalerite_{Zn\ Con}$

- Where
    - Sphalerite content of zinc concentrate:
      $\%Sphalerite_{Zn\ Con}$ = 93% (Long Term 2024+)
    - Zinc in sphalerite:

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
	$\%Zn_{\text{Sphalerite}} = 65.473 - 1.1173 \times (\%Mn_{\text{Sphalerite}} + \%Fe_{\text{Sphalerite}})$ ○ Manganese in sphalerite: $\%Mn_{\text{Sphalerite}} = \%Mn_{\text{Zn Con}} \times 96.78 / \%Sphalerite_{\text{Zn Con}}$ ○ Manganese in zinc concentrate: $\%Mn_{\text{Zn Con}} = 3.4528 \times \%Mn_{\text{PF Feed}}$ ○ Iron in the sphalerite: $\%Fe_{\text{Sphalerite}} = (6.726 + 0.4209 \times \%Mn_{\text{Sphalerite}})$ 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: $PF\ \%Zn\ loss = -9.521 + 1.508 \times \%C_{\text{PF Feed}} + 0.15106 \times \%C_{\text{PF Recovery}}$ ○ Zinc recovered to lead concentrate: $Pb\ \%Zn\ Loss = 1.682 - 0.06876 \times \%Pb_{\text{Final Pb Con}} + 12.588 \times \%Pb/ \%Zn_{\text{PF Feed}} + 0.02642 \times \%Pb\ Rec$ ○ Zinc circuit stage recovery: $Zn\ cct\ \%ZnRec = \%Zn_{\text{Final Con}} / \%Zn_{\text{Rgher Feed}} \times (\%Zn_{\text{Rgher Feed}} - Zn_{\text{Comb tail}})/(\%Zn_{\text{Zn Con}} - Zn_{\text{Comb tail}})$ ○ Zinc in zinc circuit rougher feed: $\%Zn_{\text{Rgher Feed}} = 1.0605 \times Zn_{\text{PF Feed}}$ ○ Zinc in zinc circuit combined tail: $Zn_{\text{Combined tail}} = 0.8\%$ if $\%Zn_{\text{Rgher Feed}} <= 10.5\%$ or else $Zn_{\text{Combined tail}} = 0.08562 \times \%Zn_{\text{Rgher Feed}}$ ○ Zinc recovery factor: Zn Rec Factor = 0.984 • 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 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).

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
	• Stope stability is strongly influenced by the presence and proximity of hangingwall 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 has improved predicted ELOS. From the most recent run of the mechanistic overbreak model, the predicted dilution for 2021 is 9.86% or 0.64m ELOS • 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; ○ Core shed; ○ Fuel farm; ○ Bore water fields and raw water supply lines;

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
	○ Processing plant and Assay Laboratory; ○ Paste plant; ○ Tailings storage facility; ○ Mobile equipment workshop and supply warehouse ○ UG Ventilation Exhaust Fans x 3
Costs	• The estimation of capital cost for the Dugald River project was derived from first principles in the 2021 LoA schedule and is to be refined through operation reviews. • 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 2021 guidance. • The long-term exchange rate used the January 2021 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 2021 budget. The additional costs for storing and ship loading of concentrate in Townsville are included. For the 2021 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 2021 Ore Reserves process, the net smelter return (after royalty) (NSR) has been revised with the latest parameters and compared against the previous 2020 NSR calculation that was used for the 2020 Ore Reserve. • 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.

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
Market assessment	• Global zinc consumption contracted in 2020 as the coronavirus pandemic and the consequences of the actions of governments to contain and mitigate against its effects dominated all base metal markets, including zinc. • As the global economy normalises, zinc demand, led by the manufacturing sector and the energy transition, is forecast to rebound, with growth of 4% expected for 2021 and demand growth of 1-2% is forecast for the medium-term. • As zinc prices recovered during 2020, smelter utilisation and their zinc metal output increased, allowing global stocks of refined metal to increase from the historical lows seen in 2018 and 2019. • Despite the increase in refined stocks, often a bearish impact on the price, the zinc price has in fact climbed higher, primarily due to the conviction amongst investors that government stimulus will continue to enable a strong rebound in economic growth and fuel demand for commodities. • Zinc mine production has increased during 2020 and is now well above the COVID-19 impacted lows seen in 2020. Mines around the world have put in place protocols to control virus infection, but the supply of concentrate remains exposed to the risk of mine supply disruption from “third-wave lockdown restrictions at operating mines or in their wider supply chain. • While concentrate supply appears healthy in the short term, in the medium to longer term, mine production will 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 complicated if there are periods of price uncertainty. • Smelters have received and accepted Dugald River Zinc concentrate quality in China, Australia, Japan and Korea during 2020. There is substantial demand from smelters and traders for long-term contracts for the supply of the product which underpin sales from 2020 onwards.
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 2021 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. • All evaluations were done in real Australian (AU) dollars.
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

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
	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.
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 liner on the upstream side. The dam was designed and constructed in accordance with ANCOLD 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 by 2027, achievable by raising the embankment wall with capital costs incorporated into the Reserve financial evaluation.

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
Classification	• Ore Reserves are reported as Proved and Probable. • Only Measured (19.9%) and Indicated (25.8%) 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 2018 Ore Reserves. • No external audits have been undertaken for the 2020 Ore Reserves. • An External Review and Audit is planned for the 2021 Ore Reserves.

Discussion of relative accuracy /confidence	The 2021 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. As mining continues at depth refrigeration is required. A refrigeration plant will be 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. 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. 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

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
	in consultation with market analysts and the corporate finance team to establish the most likely future positions.

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
Richard Buerger, Manager Geology Mining Plus (Melbourne) Corey Jago, Senior Geologist – Resources & Orebody MMG Ltd (Dugald River) Wesly Randa, Senior Resource Geologist MMG Ltd (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
Angus J Henderson, Snr 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 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 2021* – with the author's approval. Any other use is not authorised.

01/10/2021

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 2021* – with the author's approval. Any other use is not authorised.

Nikki Dickinson
Melbourne, VIC

Signature of Witness:

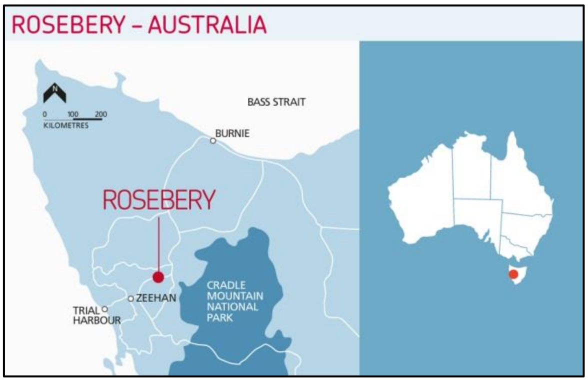
Witness Name and Residence: (e.g. town/suburb)

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. Rosebery milled approximately 1 Mt of ore for the year ending 30 June 2021.

6.2 Mineral Resources – Rosebery

6.2.1 Results

The 2021 Rosebery Mineral Resources are summarised in Table 18. The Rosebery Mineral Resources is inclusive of the Ore Reserves.

Table 18 2021 Rosebery Mineral Resources tonnage and grade (as at 30 June 2021)

Rosebery Mineral Resources											
							Contained Metal				
Rosebery[1]	**Tonnes (Mt)**	**Zinc (% Zn)**	**Lead (% Pb)**	**Copper (% Cu)**	**Silver (g/t Ag)**	**Gold (g/t Au)**	**Zinc (kt)**	**Lead (kt)**	**Copper (kt)**	**Silver (Moz)**	**Gold (Moz)**
Measured	6.5	7.7	2.9	0.22	130	1.4	500	190	14	28	0.29
Indicated	3.1	6.5	2.3	0.17	120	1.2	200	69	5.2	12	0.11
Inferred	7.1	8.6	2.5	0.21	91	1.2	610	180	15	21	0.27
Total	**17**	**7.9**	**2.6**	**0.21**	**110**	**1.3**	**1300**	**440**	**34**	**60**	**0.67**
Stockpiles											
Measured	0.03	8.2	3.1	0.27	150	1.7	2.3	0.9	0.08	0.14	0.002
Total	**0.03**	**8.2**	**3.1**	**0.27**	**150**	**1.7**	**2.3**	**0.9**	**0.08**	**0.14**	**0.002**
Total Rosebery	**17**	**7.9**	**2.6**	**0.21**	**110**	**1.3**	**1,300**	**440**	**34**	**61**	**0.68**

[1] Cut-off grade is based on Net Smelter Return (NSR), expressed as a dollar value of A$174/t

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

Contained metal does not imply recoverable metal.

Overall, the 2021 Rosebery Mine Mineral Resources has increased by 1.2Mt since last reported in 2020. Changes affecting the final reporting number include:

- New drilling, mapping and modelling finding an additional 2.47 Mt of Mineral Resource, majority of which was added in the Middle Mine (RS, V and H lenses).
- 1.02 Mt mining depletion in the Lower Mine between 1st July 2020 and 30th June 2021.
- Additional material in close proximately to remnant voids removed from the Mineral Resource in the Middle Mine after review and reclassification.
- 2021 metal prices updates and NSR cut off increased from $172 in 2020 to $174.

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 2021

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
Sampling techniques	• Diamond drilling (DD) was used to obtain an average 1m sample that is half core split, crushed and pulverised to produce a pulp (>85% passing 75µm). • DD core is selected, marked and ID tagged for sampling by the logging geologist. Sample details and ID are stored in the SQL database for correlation with returned geochemical assay results. • Prior to May 2016, pulps were delivered to the ALS laboratory in Burnie, Tasmania for XRF analysis. Post May 2016 half core samples are delivered to the ALS laboratory in Burnie for sample preparation and XRF analysis. Analysis moved to the ALS Townsville laboratory in October, 2016. • There are no inherent sampling problems recognised. • Measurements taken to ensure sample representivity include sizing analysis and duplication at the crush stage.
Drilling techniques	• The drilling type is diamond core drilling from underground using single or double tube coring techniques. As of January 2014, drill core is oriented on an ad hoc basis. • Drilling undertaken from 2012 is LTK48, LTK60, NQ, NQ2, NQTK, BQTK and BQ in size. Additional drilling in the reporting period is NQ2. • Historical (pre-2012) drillholes are a mixture of sizes from AQ, LTK (TT), BQ, NQ, HQ and PQ.
Drill sample recovery	• Diamond drill core recoveries average 96%. Drill crews mark and define lost core intervals with blocks. Sample recovery is measured and recorded in the drillhole database. If excess core loss occurs in a mineralised zone, the hole is re-drilled. • 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 observable correlation between recovery and grade. • Preferential loss/gains of fine or coarse materials are not significant and do not result in sample bias as the nature of mineralisation is massive to semi-massive sulphide, diamond core sampling is applied, and recovery is very high.
Logging	• 100% of diamond drill core has been geologically and geotechnically logged to support Mineral Resources estimation, mining and metallurgy studies. • Geological and geotechnical logging is mostly qualitative (some variables are quantitative). Logging is undertaken using laptop computers which store data directly to the drillhole database. • All drill core is photographed, with photos labelled and stored on the Rosebery server.

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
Sub-sampling techniques and sample preparation	• All samples included in the Rosebery Mineral Resources estimate are from diamond drill core with intervals directed by the logging geologist. The standard sampling length is one metre with a minimum length of 40cm and maximum of 1.5m. • From 2005 until 2010 geological samples have been processed in the following manner: Dried, crushed and pulverised to 80% passing 75µm. Sizing analysis is carried out on 1:20 pulps. • From 2010 until 2016 geological samples have been processed in the following manner: 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. • From 2016 geological samples have been processed in the following manner: 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 2018 samples have been 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. • From late 2019, after receiving approval from Mineral Resources Tasmania (MRT), whole core sampling with the waste portion discarded was conducted on all drillholes except for exploration and additional resource drilling (60m spacing) to help deal with the lack of storage space available at Rosebery. Grade control (15m spacing) and delineation (30m spacing) drillholes in areas of complex geology are not whole core sampled and continue to be half core sampled. Disposal of core only happens after significant verification of results and after consultation with the Competent Person, Senior Resource Geologist and Senior Mine Geologist. • Sample representivity is checked by sizing analysis and duplication at the crush stage. • The sample types, nature, quality and sample preparation techniques are considered appropriate for the style of the Rosebery mineralisation by the Competent Person.
Quality of assay data and laboratory tests	• From 2005 until 2010 the assay methods undertaken by ALS Burnie for Rosebery were as follows: ○ 3-Acid Partial Digest (considered suitable for base metal sulphides). ○ Analysis of Pb, Zn, Cu, Ag, Fe by Atomic Absorption Spectrometry (AAS). ○ Au values are determined by fire assay. ○ From 2010 until 2016 the assay methods undertaken by ALS Burnie for Rosebery were as follows: ○ 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).

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	o Analysis of Au by fire assay, three acid digest and flame assay AAS (30g sub-sample charge). • From 2016 the assay methods undertaken by ALS Brisbane and Townsville were as follows: o Analysis of Ag, Zn, Pb, Cu and Fe by four acid ore grade digest, ICPAES finish with extended upper reporting limits (ALS Brisbane). In addition to these main elements, another 29 elements are reported as a part of this method. o Analysis of Au by fire assay, three acid digest and flame assay AAS (30g sub-sample charge) (ALS Townsville). • All of the above methods are considered effectively total digestion and are suitable for Mineral Resources estimation at Rosebery. • The employed assay techniques are considered suitable and representative; a comparison study using the Inductively Coupled Plasma (ICP) technique was completed to check the XRF accuracy in May 2013. Independent umpire laboratory ICP re-assay of 5% pulps took place in June 2015 and May 2016 using the Intertek laboratory in Perth. Pulps for analysis were randomly selected from a list of samples where (Pb + Zn)>5%. • No data from geophysical tools, spectrometers or handheld XRF instruments have been used for the estimation of Mineral Resources. • ALS laboratory Brisbane and Townsville releases its QAQC data to MMG for analysis of internal ALS standard performance. The performance of ALS internal standards appears to be satisfactory, with several standards used within the range of MMG submitted samples. • Three new matrix-matched standards have been certified (LBM-20, MBM-20 and HBM-20) and are now routinely used, replacing the 18-series standards. • MMG routinely insert: o Matrix-matched standards, dolerite blanks and duplicates at a ratio of 1:20 to normal assays. o Blanks are inserted to check crush and pulverisation performance. o Duplicates are taken as coarse crush and pulp repeats. o 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. • QA/QC analysis has shown that: o Au determination issues continue with approximately 10% of the low base metal standard (LBM-20) failing for Au. One cause of the moderate failure rate of Au in LBM-20 is thought to be differences in the precision of the analytical method used by the assaying laboratory (AA; reported to 2 decimal places), compared to the precision of the method used to certify the CRM (ICP; reported to 3 decimal places). This means the QAQC analysis undertaken by MMG assesses the assay results compared to the CRM's to a degree of precision that the AA method in unable to achieve. This difference accounts for approximately half of the fails of Au in LBM-20 leaving a failure rate of ~5%. All of which are all re-assayed if within the target mineralised zone.

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	○ For 2020 all elements in each standard are within +/-5% average bias window as set in the MMG Work Quality Requirement. A consistent 3-4% negative bias was evident in LBM-20 for Cu, however all results for the year are still within one standard deviation. ○ Minimal blank failures occurred in 2020 (6 for Cu and 16 for Zn) indicating that only a small amount of levels of grade carryover is occurring. This is an improvement on the previous year. ○ Quartz flushes continue to perform well in 2020 with no results over ten times detection limit across all elements. ○ Pulp duplicates have performed better than crush duplicates in all elements for 2020 as expected. Repeatability is consistent for all pulp and crush duplicates with all elements within 5% relative difference from their original samples, except for Au Crush duplicates (6.9%). The average CV % of all duplicates for the year are below the reference CVs outlined in internal guidelines. R2 values indicate that Au crush and pulp and Ag crush duplicates show the least amount of correlation (0.75 and 0.86 respectively). This is attributed to the nuggetty nature of these elements. ○ Reduced Major Axis analysis indicates some bias is present in all duplicate samples for the year. Au pulp and Zn crush duplicates show a slight negative bias while all other duplicates show positive CI Interval Ranges but a CI Slope range greater than 1 or vice versa. Reduced Major Axis is tracked on a monthly basis and no clear trends of bias for any duplicates can be seen over the year and is not of concern. ○ 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 and are within acceptable limits. For 2020 umpire duplicates for all elements, except of Au, had a mean percentage difference within approximately +/-5% of the routine standards, R2 values close to 1 and low average CV% suggesting repeatability is consistent across labs. Gold was the worst performing umpire duplicate which is attributed to the nuggetty nature and no consistent bias between the umpire duplicates and the original samples are present. In Q4 2020, standard analyses at Intertek shows poor accuracy for Zn. This issue is currently being investigated. ○ Several standards used to assess the quality of Bulk Density measurements were noted as failing in December 2020. An internal review found the SG cradle was retaining some water after removal from the bath, which was affecting the results. This was exacerbated for the standards as the standards used were approximately 10% of the volume of 1m of core. This problem has been rectified by modifying the SG machine. No standards failures have occurred since. • None of the issues described above degrades the Mineral Resources estimation confidence to any significant extent.
Verification of sampling and assaying	• All mineralised intersections are viewed and verified by numerous company personnel by comparing assay results to core photos and logging. • Batches of sampling and assay data are entered by geologists; the performance of duplicates, blanks and standards is checked by the Mine Project Geologist after each assay batch is loaded to the database; batches with failed standards are flagged and pertinent samples are sent for re-assay.

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	- Close twinning of mineralised intersections is not an intentional part of the delineation. However, the underground drill pattern often achieves a near-twinning or scissoring and this confirms individual intersections. In 2020, several programs of confirmation drilling were successfully conducted to verify the positions and grade of existing older resources in the Middle Mine. - Re-assayed data, due to the failure of a standard, is reviewed to determine which batch is to be used for data export and Mineral Resources estimation. Batch status is recorded in the database for audit purposes. - Database validation algorithms are run to check data integrity before data is used for interpretation and Mineral Resources modelling. - Unreliable data is flagged and excluded from Mineral Resources estimation work. Data validation macros are used to identify data errors that are either rectified or excluded from the estimation process. - Since August 2014 all data below the 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, the drillhole is excluded from the estimation process.
Location of data points	- Historically diamond drillholes have been surveyed using magnetic single shot surveys at intervals between 20-30m - A downhole gyro measurement has been recorded from selective drillholes prior to March 2014 as an independent check of downhole survey accuracy. Analysis suggested the single shot surveys are accurate to 100m drillhole depth, and then diverge up to 4m at 400m depth. Given this outcome, gyro downhole surveys are now standard for all diamond holes. - Prior to March 2018, all diamond drillholes were downhole surveyed using a single-shot Reflex Ezi-shot tool at 30m intervals, with a full downhole Reflex gyro survey completed at end of hole by the drilling contractor. Where a gyro downhole survey is not practicable due to equipment limitations, then a multi-shot survey was completed. - Since March 2018, in addition to the Reflex gyro tool, a Champ Gyro north seeking tool was introduced to survey drillholes. The Champ Gyro uses a north-seeking function for drillholes outside of the range between -200 and +200. For holes between -200 and +200 drillholes are surveyed in the continuous mode (gyro using design azimuth for collar dip and azimuth). - Selected surface exploration drillholes have been downhole surveyed using a SPT north seeking gyro (parent holes only). - Collar positions of underground drillholes are picked up by Rosebery mine surveyors using a Leica T16, TS15 and MS60 Total stations. Collar positions of surface drillholes are picked up by surveyors using differential GPS. Historically, surface drillhole collar locations were determined using a theodolite or handheld GPS. - Grid system used is the Cartesian Rosebery Mine Grid, offset from Magnetic North by 23°52’47” (as at July 1st, 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.

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	• 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 mineral deposit is drilled on variable spacing dependent on lens characteristics and access. Drill spacing ranges from 40m-60m to 10m-25m between sections and vertically. The final drill pattern varies somewhat due mostly to site access difficulties in some areas. Mineralisation has short scale structural variations observable in underground workings. Some of this variation is not discernible from drill data alone. Observations of mineralisation geometry are made by traditional geological mapping and more recently using photogrammetry images of mine development faces and backs. All ore drives and most non-ore development headings are covered. • The combination of drillhole and other data is sufficient to establish the degree of geological and grade continuity appropriate for Mineral Resources and Ore Reserves estimation and the classifications applied. • Diamond drillhole samples are not composited prior to being sent to the laboratory however the nominal sample length is generally 1m. Reverse circulation drill samples are not used for Mineral Resources estimation.
Orientation of data in relation to geological structure	• Drillhole orientation is planned orthogonal to lens strike in vertical, radial fans. Drill fan spacing and orientation is planned to provide evenly spaced, high angle intercepts of the mineralised lenses where possible, thus minimising sampling bias related to orientation. Some drill intersections are at low angle to the dipping mineralisation due to access limitations. • Where drillholes from surface or older holes longer than 400m exist, attempts are made to confirm mineralised intercepts by repeat drilling from newly developed drives. Deep drill intersections are excluded from Mineral Resources modelling where duplicated by shorter underground drillholes. • Drilling orientation is not considered to have introduced sampling bias.
Sample security	• Measures to provide sample security include: o Samples are stored in a locked compound with restricted access during preparation. o Half-core samples for despatch to ALS Burnie are stored in sealed containers with security personnel at the MMG mine front gate for pick-up by ALS courier. o Receipt of samples acknowledged by ALS by email and checked against expected submission list. o Assay data returned via email as spreadsheet and archived online as a backup.
Audit and reviews	• An external audit of the Lower Mine Mineral Resource is taking place with preliminary results not yet released. There have not been any material changes to the Rosebery Mineral Resource estimation technique since the previous external audit. The audit was undertaken by AMC on the 2018 Rosebery Mineral Resource. In 2018, AMC considers the Rosebery Mineral Resource estimate has been completed using usual industry practises and in accordance with the requirements and guidelines of the JORC Code 2012. MMG's approach is to include geological and grade components in compiling the resource estimates, which AMC considers appropriate. AMC considers

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	that the model forms a suitable basis for Mineral Resource reporting and for use in Ore Reserves and mining studies. No material issues were identified. • Historically, any issues identified during audits and reviews 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 4,906 ha. • ML28M/93 located 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 1st May 1994. • The lease expiry date is 1st 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 the other at the southern end of the Rosebery Mine Lease, covering a total of 16.07 km^2. • The joint venture agreement was between the 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 16th 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 31st December 2001. • There are no known impediments to operating in the area.
Exploration done by other parties	• Tom Macdonald 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 lead by Tom McDonald discovered the main lode through trenching operations, on what is now the 4 Level open cut (Easterbrook, 1962; Martin, 2002). • 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 Rosebery's mineralised lenses.
Geology	• The Rosebery volcanogenic massive sulphide (VMS) deposit is hosted within the Mt Read Volcanics, a Cambrian assemblage of lavas, volcaniclastics and sediments deposited in the Dundas Trough between the Proterozoic Rocky Cape Group and the Tyennan Block.

Section 2 Reporting of Exploration Results	
Criteria	**Commentary**
	• Sulphide mineralisation occurs in stacked stratabound massive to semi-massive base metal sulphide lenses between the Rosebery Thrust Fault and the Mt Black Thrust Fault; the host lithology and the adjoining faults all dip approximately 45 degrees east.
Drillhole information	• The Mineral Resources database consists of 14,889 diamond drillholes providing ~550,000 samples. • No individual drillhole is material to the Mineral Resources estimate and hence this geological database is not supplied.
Data aggregation methods	• This is a Mineral Resources 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 Resources estimation.
Relationship between mineralisation width and intercept lengths	• Mineralisation true widths are captured by interpreted mineralisation 3D wireframes. • Most drilling was at 50° to 60° angles in order to maximise true width intersections. • Geometry of mineralisation is interpreted as sub- vertical to vertical and as such current drilling allows true width of mineralisation to be determined.
Diagrams	• No individual drillhole is material to the Mineral Resource estimate, and hence diagrams are not provided.
Balanced reporting	• This is a Mineral Resources Statement and is not a report on exploration results hence no additional information is provided for this section.
Other substantive exploration data	• This is a Mineral Resources Statement and is not a report on exploration results hence no additional information is provided for this section.
Further work	• Further underground near mine exploration drilling is being assessed.

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
Database integrity	• The following measures are in place to ensure database integrity: ○ All Rosebery drillhole data is stored in an SQL database on the Rosebery server, which is backed up at regular intervals. ○ Geological logging is entered directly into laptop computers which are uploaded to the database. Prior to 1996 DD holes were logged using Lotus spreadsheets or on paper. ○ Assays are loaded into the database from spreadsheets provided by the laboratory.

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
	• A database upgrade and full data migration was undertaken in November 2014. Several rounds of data migration checks were undertaken before allowing the database to go live. ○ Data validation procedures include: ○ Validation routines in the new database check for overlapping sample, lithological and alteration intervals. ○ 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. ○ Bulk data is imported into buffer tables and must be validated before being uploaded to the master database
Site visits	• The 2021 Competent Person for Mineral Resources has not visited Rosebery Mine during the reporting period due to the ongoing COVID-19 global pandemic. The Competent Person has visited the site in previous years and has access to core photography of new drilling and photogrammetry of underground development. Video meetings between the Competent Person and site personal happen on a regular basis.
Geological interpretation	• Economic Zn-Pb-Ag-Au mineralisation occurs as massive, semi-massive and disseminated base metal sulphide lenses located within the Rosebery host sequence. Economic and near-economic mineralisation is easily visually identified in drill core and underground mine development. • Drill core is routinely sampled across zones of visible sulphide mineralisation. • The method used for defining mineralisation domains for the 2021 Mineral Resources estimate is described below: ○ Peer reviewed exploratory data analysis was undertaken for each element of interest. ○ 3D wireframe models of each mineralisation style were created using an Indicator interpolation similar to kriging (Radial Base Function) in combination with vein modelling, using Leapfrog Geo v6 software. Key data inputs included composited drill data converted to Indicators and mineralisation guidelines from traditional mapping and high quality photo images of development faces and backs. ○ The Radial Base Function interpolation uses a model representing the spatial variability of each variable and this was chosen on the basis of directional experimental semi-variograms and drill spacing. The interpolation search directions are determined by a Structural Trend Model created using mineralisation trend triangulations created from interpretations looking down the axis of regional stress. ○ The resultant wireframe models were visually compared to mapped or recorded mineralisation contacts from traditional geological mapping and Adamtech photo images. A close correlation between the models and points of observation is noted in most areas where data are available. Differences occur due to the 5m resolution of wireframes and compared to more detailed

<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>mapping. Where major differences occur, guideline strings are used to modify the wireframes to reflect the mapping where appropriate.
○ The domain models are broadly consistent with logged and mapped observations of the main lithology units present at mine scale, namely black shale, porphyry and the hanging wall and footwall contacts with the host sequence.</td></tr>
<tr><td>Dimensions</td><td>• The Rosebery mineral deposit extends from 400mE to 1800mE, 2800mN to -1100mN, 3400mRL-1800mRL (Rosebery Mine grid co-ordinates) and is currently open to the north, south and at depth. Individual lenses vary in size from a few hundred metres up to 1000m along strike and/or down-dip.
• The range of minimum, maximum and average thickness of the mineralised lenses are as follows:<table><tr><th>Minimum (m)</th><th>Maximum (m)</th><th>Mean (m)</th></tr><tr><td>0.2-0.3</td><td>12-36</td><td>3-6</td></tr></table></td></tr>
<tr><td>Estimation and modelling techniques</td><td>• Grades estimation uses Ordinary Kriging (OK) as implemented in Maptek Vulcan version 2020. The main inputs and parameters are described below:
○ Blocks and 1m composites flagged by domain and estimated individually.
○ Parent block size for estimation of 2mE x 7.5mN x 5mRL.
○ Block size approximates one half of drillhole spacing in northing and RL, and is consistent with the primary sampling interval in easting (1m).
○ Discretisation is 2x4x2 (X, Y, Z) for a total of 16 points per block.
○ Minimum/maximum sample search number depends on domains based on KNA but is generally 8/24 for most domains.
○ Octant search methods were not used.
○ A minimum of 3 drillholes is required for a block to be estimated.
○ Grade capping was applied to the high grade gold and silver domain in some lenses.
○ High yield restriction has been used in the low grade domains in the U lens to limit the influence of high grade samples within the low grade domain.
○ A second estimation pass was used to estimate blocks in sparsely sampled areas not estimated in the primary estimation.
• All recoverable elements of economic interest to the Rosebery Operation (Zn, Pb, Cu, Ag, Au) and Fe have been estimated.
• No deleterious element or non-grade variables of economic significance have been identified – hence they are not estimated.
• No dilution or recovery factors are taken into account during the estimation of Mineral Resources. These are addressed in the relevant Ore Reserves statement.
• All metals are estimated individually, and no correlation between metals is assumed or used for estimation purposes.</td></tr>
</table>

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
	• Block model validation was conducted by: ○ Visual inspections for a true fit with the high and low grade wireframes (to check for correct placement of blocks). ○ Visual comparison of block model grades against composite file grades. ○ Global statistical comparison of the estimated block model grades against the declustered composite statistics and raw length-weighted data. ○ 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. ○ Swath and Drift plots were generated and checked for all lenses. The plots 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. ○ Reconciliation with Mill data where available.
Moisture	• Tonnes have been calculated on a dry basis, consistent with laboratory grade determinations. • No moisture calculations or assumptions are made in the modelling process.
Cut-off parameters	• Net Smelter Return (NSR) has been calculated for all block model blocks, and accounts for MMG's long-term economic assumptions (metal price, exchange rate), metal grades, metallurgical recoveries, smelter terms and conditions and off-site costs. The NSR calculation was updated in May 2021. • Rosebery Mineral Resources were reported above a $174/t NSR block grade cut-off. An example of minimum grades above $174/t NSR cut-off is as follows: 4.6% Zn, 0.95% Pb, 15 g/t Ag, 0.75 g/t Au, 0.17% Cu.
Mining factors or assumptions	• Mineral Resources 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 important assumptions including minimum mining width and dilution are included in the mine design process. • Mined voids (stope and development drive shapes) are depleted from the final Mineral Resources estimate as at 30th June, 2021. • For Mineral Resources in the Lower Mine, in addition to removing actual mined voids, an additional 5m across strike has been removed from mined stopes as this near near-void skins and pillars as these are considered not to have reasonable prospects for mining. • 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.

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
Metallurgical factors or assumptions	- Metallurgical processing of ore at Rosebery involves crushing and grinding followed by flotation and filtration to produce saleable concentrates of copper, lead and zinc. Additionally, gold is partly recovered as doré following recovery from a gravity concentrator. - Metallurgical recovery parameters for all payable elements are included in the NSR calculation, which is used as the cut-off grade for the Mineral Resources 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 work, which is updated annually and includes provision 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 2021 Mineral Resources block models.
Bulk density	- In the Lower Mine (KNPWXY) bulk density is estimated using Ordinary Kriging of a combination of specific gravity (SG) measurements and SG predicted values assigned to the drillhole sample where no SG measurement was taken by a machine learning algorithm. - The machine learning algorithm (CatBoost Regressor) was trained by using 23,000 SG measurements and their associated multi-element assay results as predictor features. The algorithm consistently gives an average K-folds test r^2 results around 0.92, a significant improvement on the previously used bulk density formula. - Since introducing the SG estimation in the Lower Mine, tonnes and grades reconciliation has improved for all elements. - SG measurements are collected on all delineation drillhole samples. These measurements will be added to the training data for the machine learning model in future updates. - In the Upper and Middle Mine and U lens areas where very few SG measurements have been collected, an empirical formula is used to determine the dry bulk density (DBD) based on Pb, Zn, 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. The formula applied is: DBD =2.65+0.0560 Pb%+0.0181 Zn%+0.0005 Cu%+0.0504 Fe% - All new drilling in the Middle Mine and U Lens areas have some SG measurements taken. When sufficient data is collected in these areas a machine learning algorithm to predict old drillholes with no SG estimates will be used. - The Rosebery mineralisation does not contain significant voids or porosity. The DBD measurement does not attempt to account for any porosity.
Classification	- Mineral Resources classifications used criteria that required a minimum number of three drillholes. The spatial distribution of more than one drillhole ensures that any interpolated block was informed by sufficient samples to establish grade continuity.

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<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>• Drillhole spacing for classification were based on an internal Rosebery drillhole spacing study undertaken in 2017. Results from the study indicate:
o Measured Mineral Resources: 15m x 15m drillhole spacing
o Indicated Mineral Resources: 30m x 30m drillhole spacing
o Inferred Mineral Resources are generally defined as twice the spacing of Indicated Mineral Resources provided there is reasonable geological continuity.
• Zinc estimated values were used for classification.
• Based on the interpolated block, Resource Category wireframes were then constructed to ensure spatial continuity.
• The Mineral Resources classification reflects the Competent Persons view on the confidence and uncertainty of the Rosebery Mineral Resources.</td></tr>
<tr><td>Audits or reviews</td><td>• An external audit of the Mineral Resource is planned for 2021. The last review was undertaken by AMC on the 2018 Rosebery Mineral Resource. AMC considers the Rosebery Mineral Resource estimate has been completed using usual industry practises and in accordance with the requirements and guidelines of the JORC Code 2012. MMG’s approach is to include geological and grade components in compiling the resource estimates, which AMC considers appropriate. AMC considers that the model forms a suitable basis for Mineral Resource reporting and for use in Ore Reserves and mining studies. No material issues were identified.
• The 2021 Mineral Resources estimate was peer reviewed internally with no material issues identified.</td></tr>
</table>

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
Discussion of relative accuracy/ confidence	• There is high geological confidence that the spatial location, continuity and estimated grades of the modelled lenses within the Rosebery Mineral Resources. • The sheet-like, lensoidal nature of mineralisation historically exhibited is expected to be present in the remaining Mineral Resources at least at global scale. • Minor local variations are observed at a sub-20m scale; it is recognised that the short scale variation cannot be accurately captured even at very close drill spacing, and additional mapping data is important. Short scale geometry variation appears to be related to the preferential strain around relatively competent units in the mine sequence; there is little evidence of brittle fault offsets. • Twelve month rolling reconciliation figures for the Mineral Resources model to the mill treatment reports are within 5% for all metals an annual basis, suggesting that the Rosebery Mineral Resources estimation process is sound. • Mining and development images (including traditional mapping and digital photographic images) shows good spatial correlation between modelled mineralised boundaries and actual geology. • The combination of Mineral Resources model, mapping, stope commentaries and face inspections provides reasonably accurate grade estimations for mill feed tracked on a rolling weekly basis, in each end of month report, and on a quarterly and annual basis. • Remnant mineralisation in close proximity to 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 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 hold Chartered Professional accreditation in the field of Geology
- I have reviewed the relevant Dugald River Ore Reserves 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 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 2021* – with the author's approval. Any other use is not authorised.

________________________ Date: ________________________

Anna Lewin MAusIMM (CP). (#992405)

This signature was scanned for the exclusive use in this document – the *MMG Mineral Resource and Ore Reserve Statement as at 30 June 2021* – with the author's approval. Any other use is not authorised.

Chis Lewin
Singapore

________________________ ________________________

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

6.3 Ore Reserves – Rosebery

6.3.1 Results

The 2021 Rosebery Ore Reserves are summarised in Table 20.

Table 20 2021 Rosebery Ore Reserve tonnage and grade (as at 30 June 2021)

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	5.2	6.4	2.6	0.19	120	1.2	340	140	10	20	0.21
Probable	0.84	5.5	2.0	0.18	110	1.1	46	17	1.5	3.1	0.03
Total	**6.1**	**6.3**	**2.5**	**0.19**	**120**	**1.2**	**380**	**150**	**11**	**23**	**0.24**
Stockpile											
Proved	0.03	8.2	3.1	0.27	150	1.7	2.3	0.89	0.08	0.14	0.002
Total	6.1	6.3	2.5	0.19	120	1.2	**380**	**150**	**11**	**23**	**0.24**

Cut-off grade is based on Net Smelter Return (NSR) after Royalties, expressed as a dollar value of A$174/t.

Contained metal does not imply recoverable metal.

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

The 2021 Reserves have decreased in comparison to 2020 by approximately 1.1Mt which was contributed by multiple factors, including the below:

- Rosebery's 2021 Ore Reserves are currently located in the Lower Mine region only, and mining depletion since 30 June 2020 has decreased the 2020 Ore Reserves estimate by (-1.02Mt). This negative change is also due to:
    - an increase of $2/t in the BCOG to $174/t (used to determine Reserves material)
    - changes to the annual long-term strike price estimate to where Zinc price decreased specifically, along with subsequent differences in timing and input to the mining studies compared with the inputs for the Mineral Resource estimate.
- Diamond drilling and subsequent geological modelling have resulted in an increase in the Mineral Resource estimated within the Middle Mine of approximately (2.47Mt). A Prefeasibility Study commenced on the Middle Mine during July 2021 with the aim of providing confidence to convert appropriate parts of the Middle Mine Mineral Resource estimate to an Ore Reserve estimate.
- Tailings dam studies completed in the last reporting year have increased the level of certainty in regard to matching the life of mine schedule with required tailings storage.
    - Currently, the 2/5 Dam Stage 2 project is approved for construction by the EPA. Construction is planned to commence in Q3, 2021.
    - The 2/5 Dam also has a pre-feasibility study completed for Stage 3, with a feasibility study to be completed in 2022.
    - Bobadil Stage 10 construction is currently taking place.
    - A feasibility study has been completed for Bobadil Stage 11. Construction relies on the performance of Stage 10 to fully inform the design.

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 2021

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
Mineral Resources estimate for conversion to Ore Reserves	• The Mineral Resource estimate as reported is inclusive of the Ore Reserve estimate. • For the Ore Reserve estimate, only Measured and Indicated Resource material is included. • The Mineral Resource estimate is based on the MMG March 2021 Mineral Resource block model, (ros_knpwxy_dpm_2103_v1.dm). • There is high geological confidence in the spatial location, continuity and estimated grades of the modelled lenses within the Rosebery Mineral Resources. The sheet-like, lenticular nature of mineralisation historically exhibited is expected to be present in the remaining Mineral Resources at a global scale.
Site visits	• The Competent Person for the Rosebery Ore Reserves has been engaged as a contractor through Ground Control Engineering Pty Ltd. He has visited the site on numerous occasions since 2017 however, due to COVID-19 restrictions on travel, a site visit has not been practicable since early 2020. All communication has been via phone calls, video calling and file sharing platforms (MS Teams), and/or email correspondence.
Study status	• The mine is an operating site with an ongoing detailed Life of Asset planning process. Mining studies of the Upper Mine and Middle Mine are in progress.
Cut-off parameters	• The 2021 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 2021 Budget. Processing recoveries are based on historical performance. • The Breakeven Cut-off Grade (BCOG) and Mineral Resource Cut-off Grade (RCOG) have been calculated using MMG's 2021 Budget costs. • The operating costs, both fixed and variable, have been attributed on a per mined tonne basis using the planned mine production rate of 1.0Mtpa • 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 metallurgical recoveries. • The NSR value for both BCOG and RCOG is estimated to the mine gate and includes sustaining capital for the 2021 Ore Reserves. • RCOG is the same value as the calculated BCOG (NSR $174/tonne). However, there is a difference between the NSR values calculated for the Mineral Resource estimate and the Ore Reserve estimate, in that different price inputs are used to calculate each. This discrepancy is due to the time lag between the building of the geological resource model and the Ore Reserve estimate, which uses more recent price estimates.

Section 4 Estimation and Reporting of Ore Reserves

Criteria | **Commentary**

- Exploration drilling was classed as a one-off OPEX Cost and was excluded from 2021 COV calculations, in accordance with the international accounting guideline, 'Accounting for Exploration and Evaluation Expenditure – 10699791'. The guideline distinguishes between exploration drilling, Resource delineation drilling, and Resource definition drilling. Under the guideline, exploration drilling is considered to be an operating expense to the business as its material confidence is lower than that of Resource drilling.
- Resource Drilling is classified as CAPEX and was not classified as Sustaining Capital, and therefore did not influence the BCOG value.
- This treatment of exploration expenditure as a one-off cost does not capture whether such costs are being rolled over between years, and therefore become an ongoing operational expense that should be included in the BCOG estimate. A procedure is to be developed by MMG to account for these one-off exploration expenses to ensure that they are captured if required.
- The break-even cut-off grade (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) was used to limit the creation of stope shapes, which included estimated waste dilution. Resultant stope shapes that were below the BCOG value were evaluated for mining on an individual basis, depending on their location on level or interactions with other mining activities. Accordingly, some material that is below the BCOG is included in the Ore Reserve estimate, as it is considered profitable in its own right and/or necessary to be mined for other reasons.

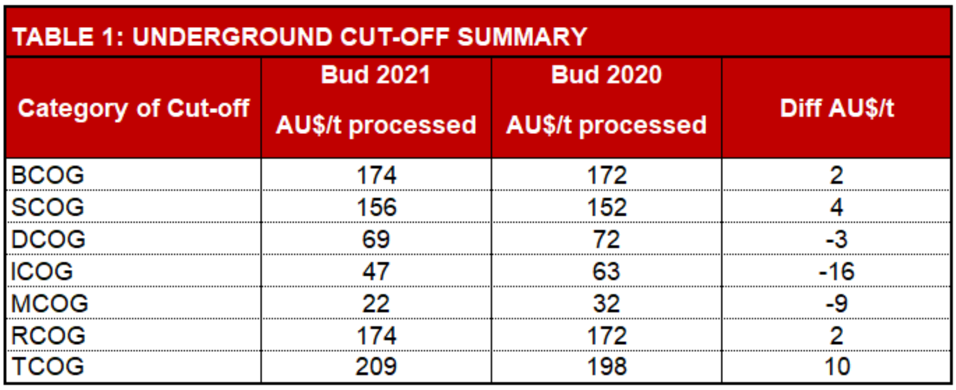


TABLE 1: UNDERGROUND CUT-OFF SUMMARY

Category of Cut-off	Bud 2021 AU$/t processed	Bud 2020 AU$/t processed	Diff AU$/t
BCOG	174	172	2
SCOG	156	152	4
DCOG	69	72	-3
ICOG	47	63	-16
MCOG	22	32	-9
RCOG	174	172	2
TCOG	209	198	10

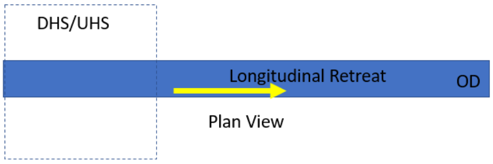
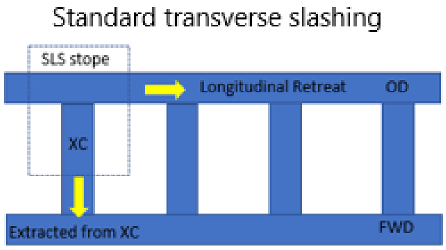
Mining factors or assumptions

- Mining production is carried out by long-hole open stoping with decline access. Stoping is conducted through both longitudinal retreat and transverse methods.
- Mining lenses are divided into panels and are mined using a bottom-up sequence in a continuous 45 degree retreating sequence, either towards or away from level access drives. The nature of this mining sequence causes fluctuations in the grade profile in the short-term. Each stoping panel contains between 3 and 5 sub-levels, with crown pillars left in-situ between the backs of up-hole stopes and the lowest ore drive of the panel above.
- 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 an open void due to lack of access for fill placement.

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
	• Long-term stope shapes are designed 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 $154). The length of each block in the SO is set to 5m. Each scheduled stope is a combination of three or four of the 5m blocks giving a stope strike length of 15m or 20m. ○ Average stope strike lengths of 15m were used in W and X Lens while the other lenses used 20m. The height was set to 20-25m (floor to floor), with a minimum true mining width of 4.5m. • A Mining Recovery factor of 75-90%, depending on the mining zone, is applied to mined ore tonnes based on historic reconciliations. • Access to the orebody is through a decline 5.5 mH x 5.5 mW at a 1:7 gradient. The approximate standoff distance between the stoping footwall and major infrastructure; ie - stockpiles, vent rises, escape-ways, declines and ancillary development, is 65-70m. • For Ore Reserve estimating, only Measured and Indicated Resource material is included. • Production of ore is in 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. • 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 depth) of air to the underground mine, which is sufficient to allow extraction from multiple ore lenses. • 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. • 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. 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. • Mining induced seismicity at Rosebery is usually related to the proximity of production to geological structures or contrasting lithological contacts. A geological 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.

<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>

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 POI process. Where a large seismic event has occurred (>0.6ML) a review of ground support capacity and requirements is completed.
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 use 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.

<table>
<tr><th>• Method</th><th>• Diagram</th></tr>
<tr><td>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</td><td>
</td></tr>
<tr><td>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 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</td><td>
</td></tr>
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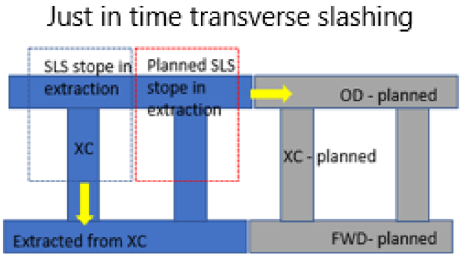
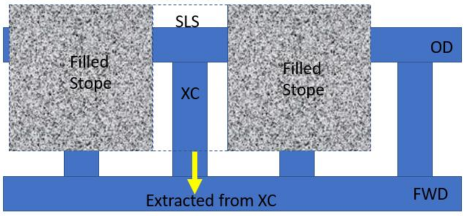
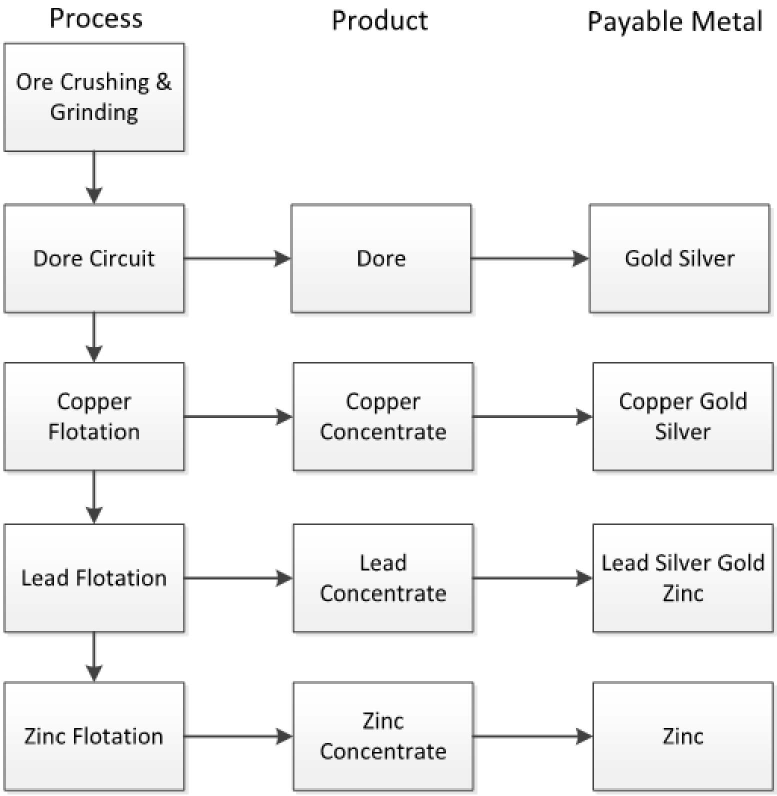
</td></tr>
</table>

Section 4 Estimation and Reporting of Ore Reserves

Criteria	Commentary
	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.  Pillar recovery – Extraction of intermediate pillars (between previously mined stopes), this method is a transverse retreat from the cross cut, 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).  Plan View • Linear elastic and non-linear elastic numerical modelling is 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.
Metallurgical factors or assumptions	• Rosebery is a polymetallic underground mine with all ore processed through an on-site mill and concentrator. Underground ore production is sourced from multiple ore lenses. The Ore Reserve estimation is based on mineralisation that is known to be appropriate for metallurgical recovery through the on-site mill and concentrator. • Rosebery has been processing ore for decades past using tested and proven technology that is suited to the style of mineralisation. • Metallurgical test work may be carried out as required using bulk sampling methods from mining operations or exploration drill core samples. However, the mineralogy and ore processing methods have been consistent over time and are proven. • The processing plant has a nameplate capacity of 1.0 Mtpa. Production forecasts for ore extraction and processing are limited to this capacity as closely as possible

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

	- From the mill there are four saleable products generated:
	  ○ Doré
	  ○ Copper Concentrate
	  ○ Zinc Concentrate
	  ○ Lead Concentrate
	- The flow chart below outlines the block flowsheet, products and payable metals.
	
	
	- The inclusion of deleterious elements is understood from historical analyses, and these are included in metallurgical recovery estimates. Of particular note is Iron (Fe), which deleteriously affects the recovery of zinc to the zinc concentrate.
	- Recoveries were estimated using the metallurgical model, which uses a regression analysis of real plant data to enable prediction of future plant performance. These calculated recoveries are used to forecast payable metal, and also provide a Net Smelter Return value for the modelled ore blocks used in the Ore Reserve estimate.
	- Specific mineralogy domains are not used in metallurgical recovery estimates, which are based only on the mineralogical head grades of processed ore, including deleterious elements. The orebody modelling process includes an estimation of the head grades for all mineralogy known to impact metallurgical recoveries. In this way, the regression analysis accounts for the various mineralogical domains within the orebody.
	- The average total metallurgical recoveries for the Life of Mine are summarised in the below table.

<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>
<table>
<tr><th>Product</th><th>Copper (%)</th><th>Zinc (%)</th><th>Lead (%)</th><th>Silver (%)</th><th>Gold (%)</th></tr>
<tr><td>Zinc Concentrate</td><td></td><td>84%</td><td></td><td></td><td></td></tr>
<tr><td>Lead Concentrate</td><td></td><td>1.8%</td><td>77%</td><td>36%</td><td>16%</td></tr>
<tr><td>Copper Concentrate</td><td>58%</td><td></td><td></td><td>41%</td><td>36%</td></tr>
<tr><td>Gold Dore</td><td></td><td></td><td></td><td>0.13%</td><td>24%</td></tr>
</table>
</td></tr>
<tr><td>Environmental</td><td>

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. The intention for the 2/5 Dam TSF is to be converted to subaerial tailing deposition. This would allow for additional storage of tailings within the TSF. Rosebery is in the process of obtaining regulatory approvals.
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 Stage 2 Raise takes place. This includes dust suppression strategies to mitigate any possible dust events to the surrounding community. (Please Refer to the Tailings portion for further information)
Rosebery has proactively been conducting dust monitoring at the 2/5 Dam TSF since the start of the construction of Stage 1.
Waste water - The waste water management at Rosebery involves collecting all potentially contaminated water, including stormwater, mine water and mill tailings at the Effluent Treatment Plant (ETP), where lime is added before 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 is capable of receiving 335 l/sec of site mine water with a remaining limited spare capacity of approximately 265 l/sec to treat the site surface rain or storm water.
The historic Hercules area has a large impact on the land area along with major water issues. This area is the most significant “legacy site” for Rosebery management. Smaller historic legacy sites include the Zeehan Smelter site, South Hercules and historic mines numbering at least ten known sites, such as Jupiter’s, along with a number of small historic workings.
Waste rock - 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 waste rock dump and was treated by adding a layer of lime on top and below every layer of waste rock. Recent Life of Asset (LoA) planning suggests there will be no requirement for waste rock to be trucked to the surface.

</td></tr>
<tr><td>Infrastructure</td><td>

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.
Electric power to the site feeds in through the No. 1 Substation located adjacent to the Mill Car Park on Arthur Street. There is a contract for the supply to the site with the Electrical Supply Authority for the region. The Commercial Department manages this, and all responsibilities (such as notifications to a change in a supply by either

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

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
	party), are detailed in this contract. The Electrical Supply Authority's substation currently has an N+1 arrangement which ensures that supply is maintained in the event of a loss of critical equipment (e.g. transformer). This also provides the Electrical Supply Authority with the ability to manage a potential increase in supply requirement by the site. Further, works are currently underway to provide an upgrade to the substation infrastructure, the result of which will provide a significant increase in the security of the supply to the site. • Freshwater 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 320 permanent staff and an additional 151 contractors, covering all aspects of the operation. Within the mining area, there are 203 MMG permanent employees. • Primary communication from the Rosebery Mine site is by phone along with surface mobile phone coverage, provided by Telstra. Phones are available throughout the main office building along with the mill and other 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 through the office area through a wireless system. The wireless system is also extended throughout part of the underground for the seismic monitoring 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 mining activity taking place underground at Rosebery, access to the operating areas is by the main decline, "The Fletcher Decline". • A single main 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. 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 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. The system comprises three primary fan installations on the surface (PSF1, PSF2 and PSF3) and two booster fan installations underground (19B Booster Fans and 33P Booster Fan). The specifications of these fan installations are detailed below: ○ PSF1 (New NUC)) are 2 x 1800 kW Howden centrifugal fans. Design duty is 400 m^3/s. ○ PSF 2 (Old NUC) is a single 550kW centrifugal fan. The duty is 110 m^3/s. ○ PSF 3 (SUC) is 2 x 550 kW Korfmann KGL 2600 mm axial fans in parallel. The duty is 154 m^3/s. ○ The 33P Booster fan is a Flaktwoods 550kW 2600 VP axial fan. ○ The 19B Booster fans are 2 x Twin 90kW Zitron secondary fans.

<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 main intake airways of the mine are the decline portal, No.2 Shaft and the NDC shaft. However, there is also minimal leakage through historic workings from the surface.
• There is a crib room and workshop facility at the 46K Level which is close to the current and ongoing production areas.
• The concentrate is transported from site by Tasrail, which is the only railway line service that connects the West Coast area to the port in Burnie.
• Until April 2018, Tailings from the ore treatment were only placed into a TSF located to the north of Rosebery, the Bobadil TSF. Tailings have subsequently been discharged at 2/5 Dam TSF, and sporadically into Bobadil TSF. The new Stage 10 raise construction at Bobadil TSF is expected to be completed by November 2021, providing Rosebery Mine with an alternative facility for the storage of tailings.
• The 2/5 Dam TSF, located to the south-west of the Rosebery township, was commissioned in April 2018 for subaqueous tailings deposition. Commissioning included a new pump station, tailings pipeline and seepage collection ponds. 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 Stage 2 raise takes place.
• The construction of the Stage 2 Raise is expected to start in August 2021, with fourteen months of expected construction time. The tailings capacity expected for this facility is presented in the section under tailings.
• 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 a possibility of constructing a Stage 3 raise.
• A pre feasibility study for Stage 3 at the 2/5 Dam TSF raise was completed in early 2020, which will be further progressed.</td></tr>
<tr><td>Costs</td><td>• Costs used in determining the cut-off values used for the Ore Reserves estimation were based on the 2021 Budget. Costs were inclusive of Operating Expenses and Sustaining Capital.
• Costs are in Australian dollars and are converted to US dollars at the applicable exchange rate.
• MMG Group Commercial supplies the 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 inflation rates, 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 deducting 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.</td></tr>
</table>

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
	• The Ore Reserves estimation has been based on these costs.
Revenue factors	• Commodity prices and the exchange rate assumptions are the same as reported in the cut-off parameters section. These are provided by MMG Group Commercial, approved by the MMG Board, and are based on external company broker consensus and internal MMG analysis. • 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. • 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. The profitable and marginal stopes were included in the Ore Reserves.
Market assessment	• MMG's market assessment is based on profiling by a leading industry market analyst which informed the MMG Board of Directors. • Zinc mine production increased during 2020 to finish the year above the COVID-19 impacted lows seen in early to mid-2020. Mines around the world have put in place protocols to control virus infection, but the supply of concentrate remains exposed to the risk of mine supply disruption from further lockdown restrictions at operating mines or in their wider supply chain. • In the medium to 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. • The recovery of mine output during 2020 resulted in increases in smelter utilisation and zinc metal output, allowing global stocks of refined metal to increase from the historic lows seen in 2018 and 2019. Zinc stocks are expected to remain within the boundaries of historical limits. • Global zinc consumption contracted in 2020 as the COVID-19 pandemic, and the consequences of the actions of governments to contain and mitigate against its effects dominated all base metal markets, including zinc. • The global economy is expected to normalise in the near-term, rebounding from its dip in 2020. Manufacturing is expected to provide the impetus for zinc consumption growth of approximately 4% in 2021. Zinc consumption is forecast to grow at over 1% annually in the medium-term. • The zinc price has increased in 2021, primarily due to 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.

Section 4 Estimation and Reporting of Ore Reserves	
Criteria	**Commentary**
	• 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 (2020-21). Dore 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. 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 shows that the Ore Reserves are economic. The Life of Mine (LOM) financial model demonstrates the mine has a positive NPV. MMG uses a discount rate appropriate to the size and nature of the organisation and deposit.
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. • During the 2020/2021 reporting period, nil community complaints were received. In the 2019/2020 reporting period, a total of five community complaints were received: two linked to noise from the rock breaker, one to the behaviour of an employee, and one linked to water discharge/ seepage. All complaints were investigated and resolved in consultation with the complainant. • The MMG Rosebery Mine – Underground Agreement 2020, is approved by the Australian Fair Work Commission and became effective 28 January 2021. • The Rosebery Mine celebrated 85 years of continuous operation In March 2021. During 2020, Rosebery undertook a range of social performance activities, including updating the Rosebery social baseline study, a Social Impact and Opportunities Assessment, and development of a management plan to support future social performance and impact management activities (SIMP). The final report has been presented and the SIMP has been developed but a number of the actions have been delayed due to limited interaction with the community during the COVID-19 restrictions.
Tailings	• The table below outlines the expected tailing storage capacities available for the start of 2021 at Bobadil and 2/5 Dam TSFs. The construction of the 2/5 Dam Stage 2 Raise is starting in August 2021, with the expected completion date in October 2022. Bobadil TSF Stage 10 Raise construction is expected to be completed at the end 2021, allowing for tailings to be distributed between the two TSF's.

Location	Tailings Capacity (Mt)	Comment
Bobadil TSF – Stage 10	1.0	Forecast 2021 Completion

Section 4 Estimation and Reporting of Ore Reserves

Criteria	Commentary

Bobadil TSF – Stage 11 (FS)	(0.8)	
2/5 Dam TSF – Stage 1 - Subaerial	(0.5)	
2/5 Dam TSF – Stage 2 - Subaqueous - Subaerial 2/5 Dam TSF – Stage 3	2.0 (1.2) (0.8)	Forecast 2022 completion
2/5 Dam TSF – Stage 3 (PFS) - Subaerial	(1.2)	

- The 2/5 Dam TSF is a subaqueous facility, but during the construction of Stage 2 Raise, the facility will be operated as a subaerial facility (Stage 1 subaerial) to allow for the construction to take place. The intention is to continue with Subaerial deposition after the Stage 2 Raise construction is completed, however, this is awaiting approvals. The conversion to subaerial deposition will allow for a Stage 3 raise to be constructed if required.
- Bobadil Stage 11 Feasibility Study (FS) was completed in 2019 for a capacity of 0.8Mt. The 2/5 Dam TSF Stage 3 Raise Pre-Feasibility Study (PFS) was completed in 2020, for 1.2Mt after subaerial deposition (or 2Mt from subaqueous deposition).
- The current LOM is a collection of the approved, completed, PFS and FS with a total capacity of 5.5Mt of tailings, at an estimated throughput of 0.8 Mtpa, providing Rosebery with tailings capacity until the end of 2027.
- The table below details the current surface waste stockpiles, and lists those that could be used for backfill activities before closure. Some waste rock dumps are located under existing infrastructure, and may not be fully recoverable.

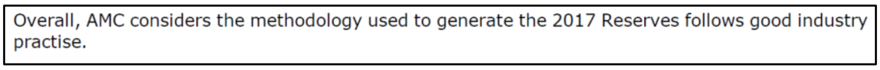
	Estimate (Tonnes)	**Assumed Available*** (Tonnes)
TOTAL	**2,410,000**	**1,590,000**

Assumes available for backfill activities before closure, WRD location not impacting the required infrastructure

Classification

- Ore Reserve classifications follow the Mineral Resource classifications, where Proved Ore Reserves are only derived from Measured Mineral Resources, and Probable Ore Reserves are only derived from Indicated Mineral Resources.
- 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 50% by mass). These may be classified as either Proved or 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 Resources category, then the individual classification components have been treated and reported as outlined above.

Section 4 Estimation and Reporting of Ore Reserves

Criteria	Commentary
Audit or Reviews	• The Processing and Mineral Resources competent person at Rosebery reviewed the NSR script to ensure correct operation for each model. Detail has been added to the script and a background document to track when and who has made changes. The 2021 NSR script was processed in the Vulcan software. In previous years the DataMine software was used. • 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 2018 for the 2017 Ore Reserve estimation. (AMC Consultants 20 July 2018). Below overall comment from AMC;  Overall, AMC considers the methodology used to generate the 2017 Reserves follows good industry practise. • In November 2019, AMC carried out a review report for Rosebery's Underground Mine Performance. This utilised data spanning between January 2018 to July 2019. The overall outcome was that the mine was operating satisfactorily along with suggested areas of improvements to which the mine was already addressing. • In 2021 MMG commenced an internal audit to review the Life of Mine (LOM) and Life of Asset (LOA) schedules and assumptions towards mine design practices and geotechnical aspects.
Discussion of relative accuracy/confidence	• The key risks that could materially change or affect the Ore Reserves estimate for Rosebery include: o 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. o 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. o Ventilation/Heat: as Rosebery continues to mine at depth and in multiple areas, primary ventilation needs to be shared adequately and heat management practices enforced. This may impact the extraction and haulage of ore and the advancement of development. • Resource Delineation & Reserve Definition drilling is applied to define tonnage and grade before mining locally. Ore Reserves are based on all available relevant information. o The Proved Ore Reserve estimate is based on local scale exploration drilling and mining exposure, and is suitable as a local estimate. o 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 (Melbourne)	Geological Mineral Resources
James Earp, Senior Business Analyst, MMG Ltd (Melbourne)	Economic Assumptions, Marketing, Sea Freight and TC/RC
Mark Lollback, Supt. Metallurgist, MMG Ltd (Rosebery)	Metallurgy
Claire Beresford, Senior Business Analyst, MMG Ltd (Melbourne)	Mining capital and Operating Costs
Jeff Price, Principle Geotechnical Engineer, MMG Ltd Melbourne)	Geotechnical
Rachael Thompson, Geotechnical Engineer, MMG Ltd (Rosebery)	Geotechnical
Dean Wall, Senior Life of Asset Planning Engineer, MMG Ltd (Rosebery)	Mining Parameters, Cut-off estimation, Mine Design and Scheduling
Pamela Soto, Principal Tailings & Water Engineer, MMG Ltd (Rosebery)	Tailings Facilities
Adam Pandelis, Senior SHEC Advisor, MMG Ltd (Rosebery)	Environmental
Jon Crosbie, Group Manager - Closure & Remediation MMG Ltd (Melbourne)	Mine Closure

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, Philip Uebergang, 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 Member 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 Ground Control Engineering 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

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 Ore Reserves - I consent to the release of the 2021 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 2021* – with the author's approval. Any other use is not authorised.

Philip Uebergang MAusIMM (#202753)

01/10/2021

Date:

This signature was scanned for the exclusive use in this document – the *MMG Mineral Resource and Ore Reserve Statement as at 30 June 2021* – with the author's approval. Any other use is not authorised.

Signature of Witness:

Dean Wall
Melbourne, VIC

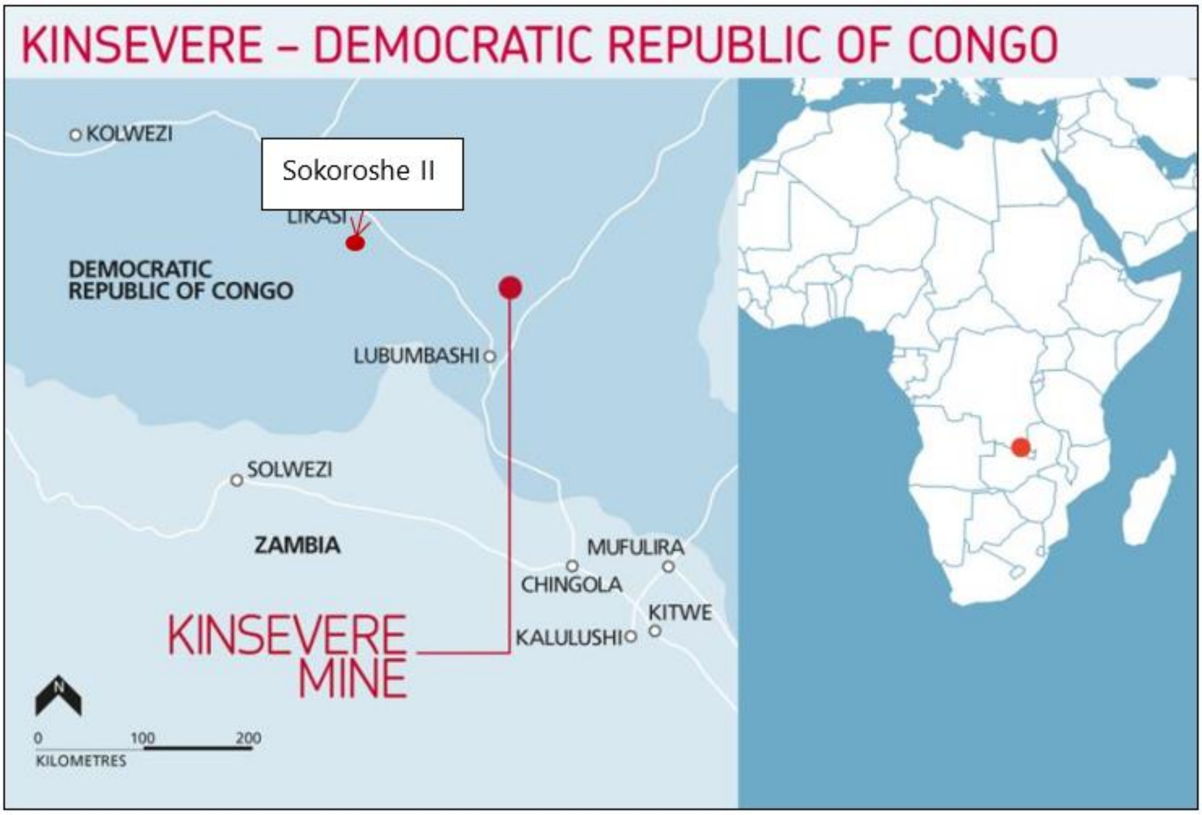
Witness Name and Residence: (e.g. town/suburb)

7 SOKOROSHE II

7.1 Introduction and Setting

The Sokoroshe II Project is located on the license PE538 in Democratic Republic of Congo, DRC. The PE538 tenement belongs to the DRC state owned mining company GECAMINES 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 South East part of the Congolese Copperbelt (CCB), located approximately 43Km northwest of Lubumbashi and is approximately 25Km west of the Kinsevere mine as the crow flies (See Figure 7-1).

Figure 7-1 Sokoroshe II project location



There is currently no mining occurring at the Sokoroshe II mineral deposit, but it was illegally mined from 2010 to 2013 by a small-scale mining cooperative.

7.2 Mineral Resources – Sokoroshe II

7.2.1 Results

The 2021 Sokoroshe II Mineral Resources are summarised in Table 23 2021 Sokoroshe II Mineral Resources tonnage and grade (as at 30 June 2021). Ore Reserves are not reported for Sokoroshe II.

Table 23 2021 Sokoroshe II Mineral Resources tonnage and grade (as at 30 June 2021)

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	1.7	2.4	2.0	0.35	42	35	6
Inferred	-	-	-	-	-	-	-
Total	**1.7**	**2.4**	**2.0**	**0.34**	**42**	**35**	**6**
Transition Mixed Ore (TMO) Copper[2]							
Measured	-	-	-	-	-	-	-
Indicated	0.1	0.9	0.40	1.46	1.0	0.4	1.6
Inferred	0.2	2.5	0.79	0.24	3.9	1.2	0.4
Total	**0.3**	**1.8**	**0.63**	**0.75**	**4.9**	**1.7**	**2.0**
Primary Copper[2]							
Measured	-	-	-	-	-	-	-
Indicated	-	-	-	-	-	-	-
Inferred	0.67	1.7	0.16	0.58	11	1.1	3.9
Total	**0.67**	**1.7**	**0.16**	**0.58**	**11**	**1.1**	**3.9**
Sokoroshe Copper Total	**2.7**	**5.9**	**2.8**	**1.7**	**58**	**38**	**12**
Oxide Cobalt[3]							
Measured							
Indicated	0.47	0.41	0.21	0.56	1.91	0.96	2.62
Inferred	0.10	0.25	0.10	0.34	0.25	0.10	0.34
Total	**0.57**	**0.38**	**0.19**	**0.52**	**2.16**	**1.06**	**2.97**
Primary Cobalt[4]							
Measured							
Indicated	0.012	0.14	0.02	0.34	0.017	0.003	0.041
Inferred	0.004	0.36	0.06	0.65	0.015	0.002	0.027
Total	**0.02**	**0.20**	**0.03**	**0.42**	**0.032**	**0.005**	**0.068**
Sokoroshe Cobalt Total	**0.58**	**0.58**	**0.22**	**0.94**	**2.2**	**1.1**	**3.0**
Combined Total	**3.3**				**61**	**39**	**15**

[1] 0.9% Cu cut-off grade

[2] 0.8% Cu cut-off grade

[3] 0.3% Co cut-off grade

[4] 0.2% Co cut-off grade

All Mineral Resources except stockpiles are contained within a US$3.68/lb Cu and US$30.24/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 II Mineral Resource 2021

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 at to 2m - 5.3m 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 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, split and pulverised (>85% passing 75 µm) at an onsite ALS 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	• Diamond drilling: PQ and HQ sizes, with triple tube 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. • 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. Measured accuracy was down to 1cm. Overall DD core recovery averaged 85% across the Project area. • 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%

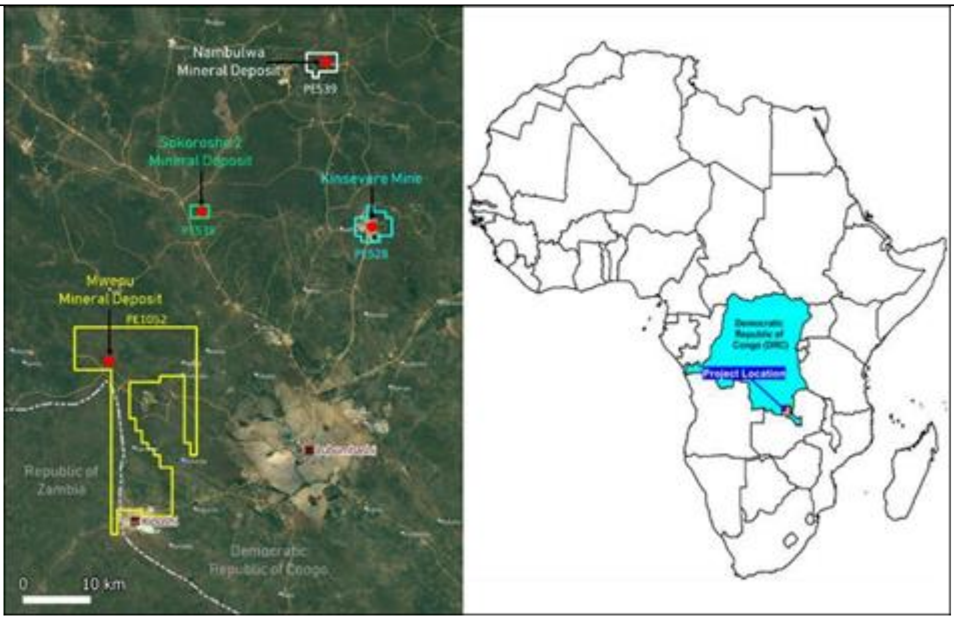
Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	• Sample recovery during diamond drilling was maximised using the following methods: o Short drill runs (~50cm) o Using drilling additives, muds and chemicals to improve broken ground conditions. o Using the triple tube methodology in the core barrel. 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 meter 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 ALS laboratory at the MMG core yard facility in Lubumbashi. • The drill core and drill chip samples are 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. • 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

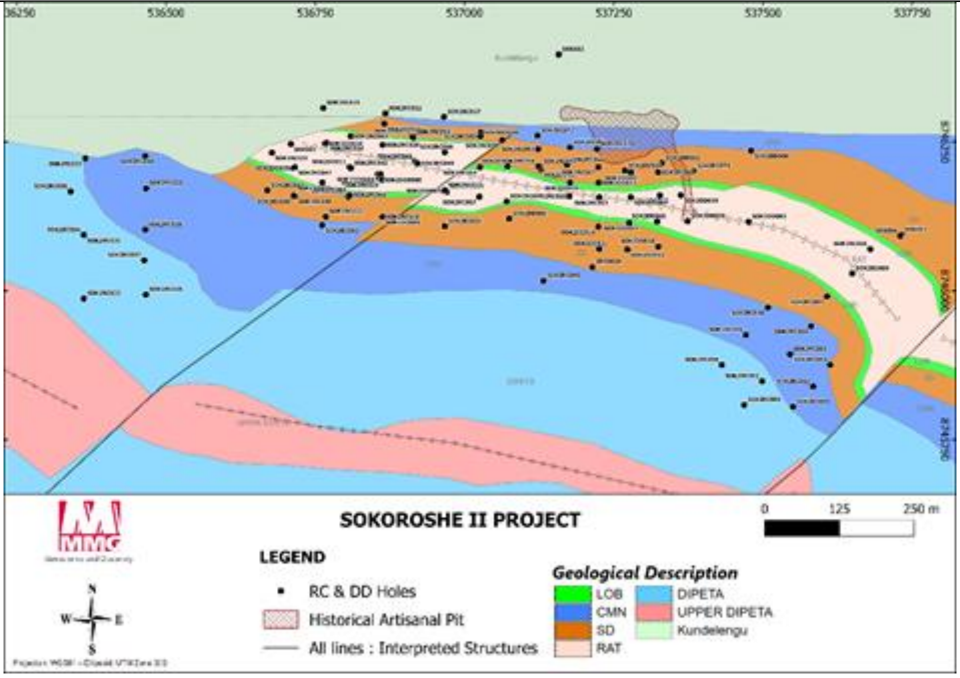
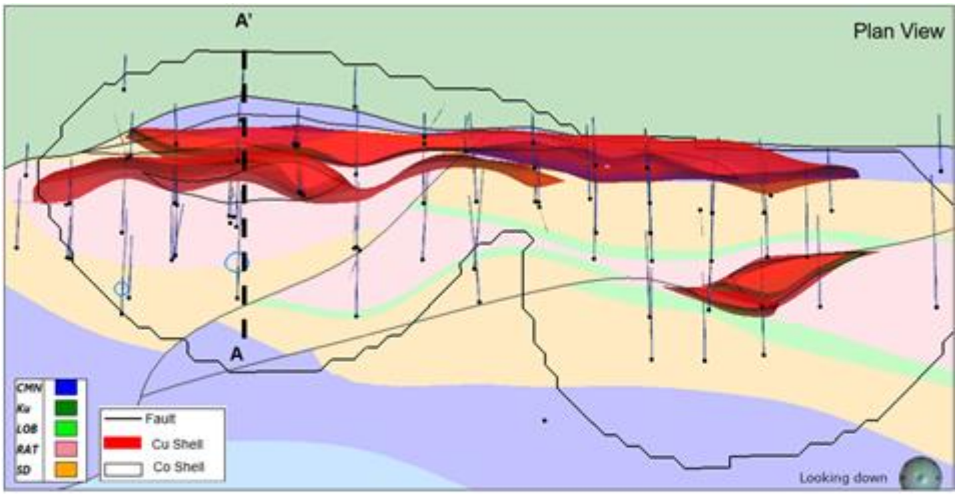
Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	pulveriser to >85% passing 75 microns. QC grind checks were carried out using wet sieving at 75 microns on 1 in 10 samples. • 100 grams of pulp material were sent to the SANAS accredited ALS Chemex Laboratories in Johannesburg. • Crush and pulp duplicates were submitted for QAQC purposes. Certified reference material (high, medium, and low copper grades) was also inserted and submitted to ALS for analysis at a rate of 3 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	• ALS Chemex Laboratory follows the preparation protocol PREP-31B for drill core and drill chip samples. • ALS Chemex Laboratory provides 48 Multi-Elements geochemical by HF-HNO3-HClO4 acid digestion, HCl leach followed by ICP-AES and ICP-MS analysis. Four Acid digest is considered a total digestion. Acid soluble copper assays were only performed when the total copper assay was 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 the estimation of the Sokoroshe II Mineral Resource. • ~15% QAQC samples were incorporated, including blanks, duplicates (field, crush, and pulp) and certified reference material per sample analysis batch. Umpires were selected and analysed at Intertek Genalysis using similar methods as ALS Chemex. Results indicate that assay analysis has been undertaken at an acceptable level of accuracy and precision. • No significant QAQC issues have been found. Standards deliver 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. • Twin holes have been drilled on section 536860mE with comparable results being returned for three closely spaced drill holes. • 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 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 considered to be of high accuracy. • Sokoroshe II uses the projected coordinate system: WGS84 Universal Transverse Mercator (UTM), ellipsoid 35 south. • The TN14 GYROCOMPASS™ was used to align the drill rig to the correct azimuth and dip angles.

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	- 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 II pit area was surveyed with LiDAR technology in 2017.
Data spacing and distribution	- DD and RC drillholes were predominantly drilled with dips of between 50° and 60° to intersect generally steeply dipping mineralisation. - Drilling azimuths were as close as practical to orthogonal to the mineralised trend. Drill hole data are spaced on approximately 40m (N-S oriented) drill sections with holes on section spaced 40 to 70m. - Additional drilling is required to satisfy local estimate of tonne and grades to a Measured classification. - No additional sample compositing has been applied apart from sample length selection.
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 due to 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. A single cab pick-up was used for the transport. 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 a labelled plastic bag along with a labelled plastic ID tag. - The plastic bag was 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 ~35 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 ~35 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.

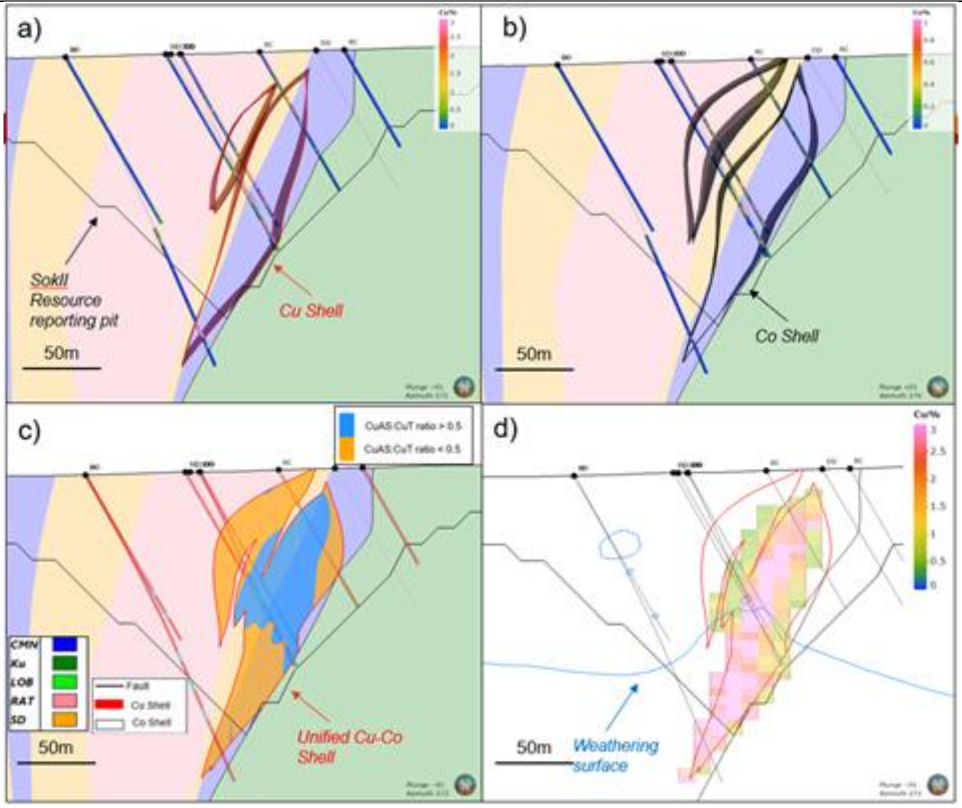
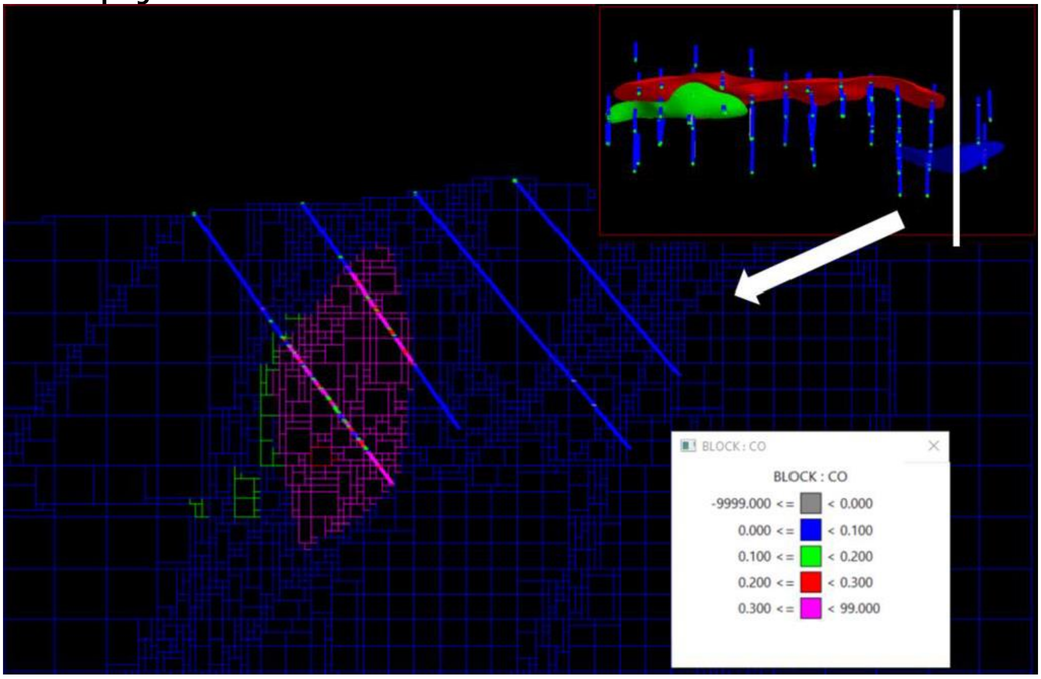
Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	- The Lubumbashi sample preparation laboratory utilizes the ALS-Chemex LIM System installed at Kinsevere mine site, generating a unique lab workorder for each batch sample in the analytical chain.
Audit and reviews	- No external audits or reviews of sampling techniques and data have been conducted for the Sokoroshe II mineral deposit. - Data has been reviewed by the Competent Person as part of this Mineral Resource estimate. No significant issues were identified.

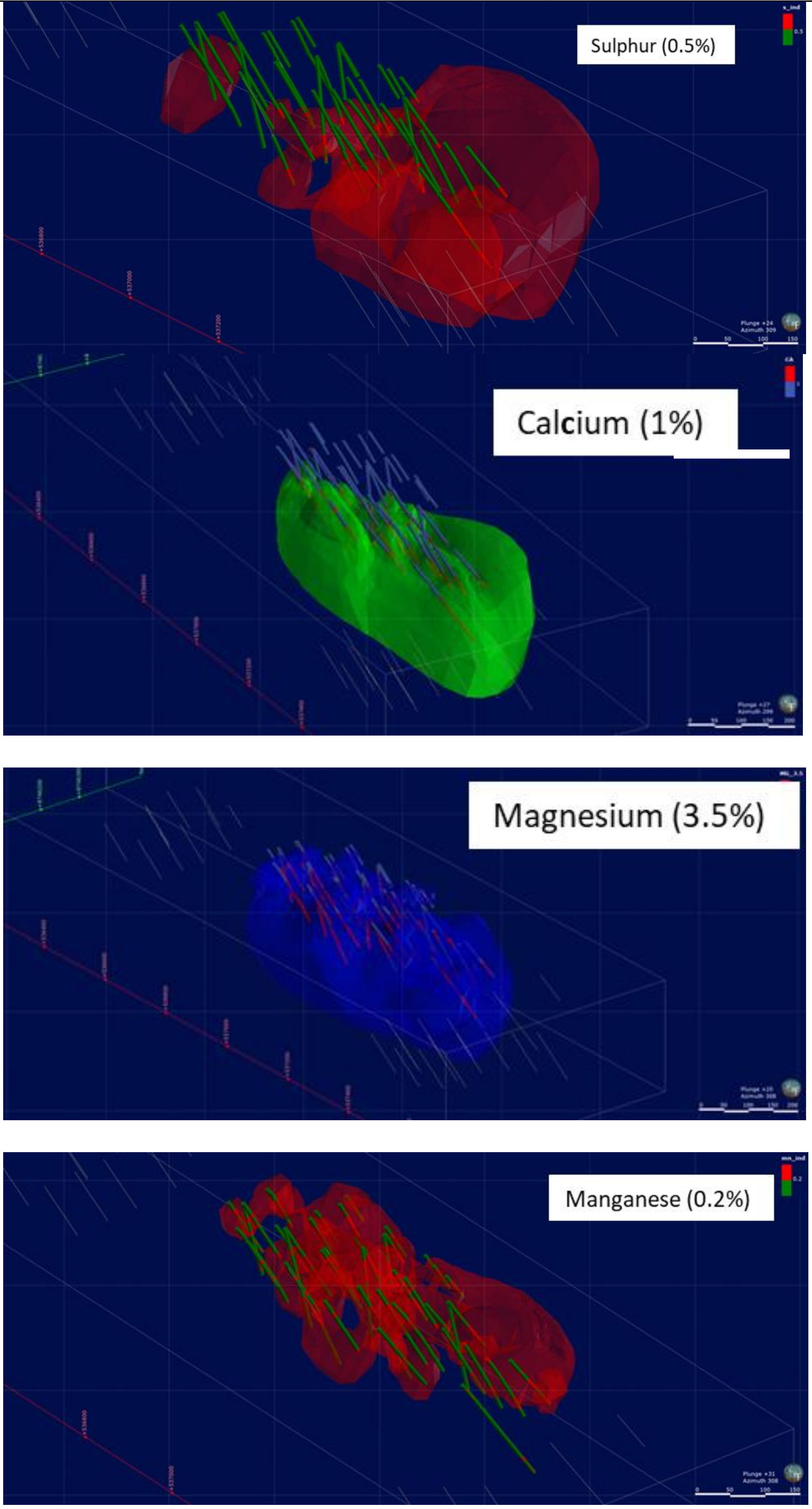
Section 2 Reporting of Exploration Results	
Criteria	**Commentary**
Mineral tenement and land tenure status	- The Sokoroshe II project consists of one mining tenement or Permis d'Exploitation, PE538, with an area of 6 cadastral units (about 5.1 Km2). The mineral rights of PE538 are held by La Générale 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 Gecamines 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 Gecamines for approval on 4 July 2017. Pursuant to clause 6.2.4(i), Gecamines 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 Gecamines within this period. MMG Kinsevere did not receive any comments or disagreement from Gecamines within the 30-day period (or any following period). Accordingly, the first Development Work Program was deemed accepted by Gecamines as from 4 August 2017 and the Development Period Start Date was also 4 August 2017.
Exploration done by other parties	- Soil sampling on 120m x 120m grid and geology mapping were done in 1976 by Gecamines. No data is available for this work. - Ruashi Holdings/Metorex carried out unknown exploration work in 2005 at Sokoroshe II. No data is available for this work.
Geology	- A sediment-hosted copper deposit, hosted in the lower part of the Neoproterozoic Katanga Supergroup in the Roan stratigraphic group. - Copper mineralisation occurs mainly as oxide fill and replacement, veins and disseminations in variably weathered, laminated dolomites and carbonaceous siltstones.

Section 2 Reporting of Exploration Results	
Criteria	**Commentary**
	• 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	• All drillhole information has been considered in estimating the Mineral Resource, and as this is a Mineral Resource report and not a public report of individual exploration results a full listing of results is not provided here.
Data aggregation methods	• Several domains and variables have a restriction on grade for the estimate. Top cut values are based on statistical analysis in effort to reduce the grade variation within the domain and preventing uncontrolled grade smearing. • No reporting of metal equivalent values has been undertaken.
Relationship between mineralisation width and intercept lengths	• This is a Mineral Resource estimate and no down hole length intervals are reported separately. All intervals have been considered within mineralised domains for the estimation of grades within the Mineral Resource. • Drill holes have been drilled on N-S sections at approximately 60° to the north. Mineralisation is oriented with an E-W strike and dipping approximately 60° to the south.
Diagrams	 *Figure 1: Sokoroshe II project location*

Section 2 Reporting of Exploration Results	
Criteria	**Commentary**
	 *Figure 2: Geology map and drill hole locations for the Sokoroshe II project.*  *Figure 3: Sokoroshe II geology and copper & cobalt grade shells. The dashed line designated A – A' is the location of the cross section shown in the following figure*

Section 2 Reporting of Exploration Results

Criteria	Commentary
	 *Figure 4: Cross section through Sokoroshe II Cu-Co deposit at 536874mE showing:* a. *Outline of the copper grade shell with downhole copper assays relative to geology and reporting pit.* b. *Outline of the cobalt grade shell with downhole cobalt assays relative to geology and reporting pit.* c. *Unified Cu-Co shell coloured by ore type with downhole CuAS:CuT ratio data relative to geology and reporting pit.* d. *Distribution of copper within the 2020 SokII MRE showing blocks > 0.4% CuT. Note* model has been regularised* **Section view (537325mE) showing drilling and new Cobalt mineralisation based on the 2019 drill campaign**  *Figure 5: Section view (537325mE) showing drilling and new Cobalt mineralisation based on the 2019 drill campaign*

Section 2 Reporting of Exploration Results	
Criteria	**Commentary**
	 *Figure 6: Additional Domains in 2020 Resource Estimate – S, Ca, Mg and Mn*

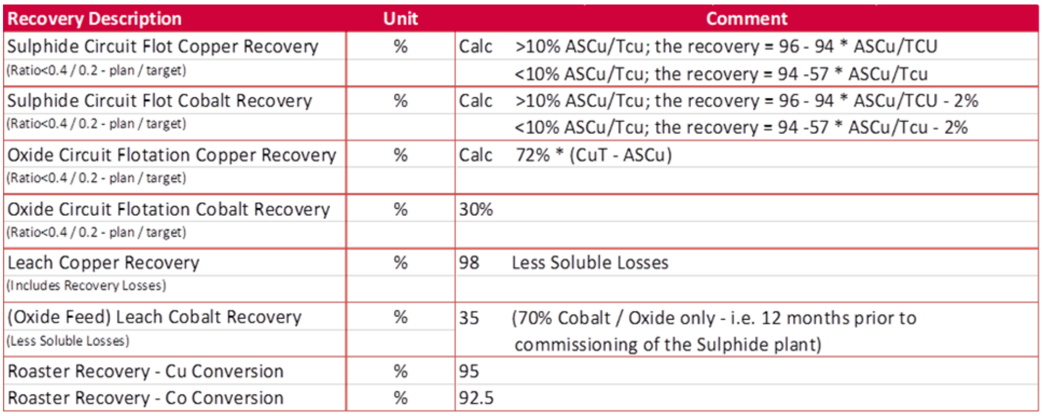
Section 2 Reporting of Exploration Results

Criteria	Commentary
Balanced reporting	• This is a Mineral Resource estimate and not a report of exploration results. • All drill holes and assay results have been considered in the construction of low- and high-grade domains for the Sokoroshe II Mineral Resource estimate.
Other substantive exploration data	• Airborne Geophysics - TEMPEST survey • Airborne EM, magnetics, and radiometric were flown at the end of 2013. A channel 7 EM conductor was identified to the East of Sokoroshe II occurrence. • Geological mapping was conducted in 2014. Mapping results indicated lithologies from the Roan stratigraphic unit, the main host rock to the mineralization. Younger lithologies were also noted from the Nguba and Kundelungu Formations. • Surface geochemistry: o Termite mound sampling on 100m x 100m grid was completed in 2014, which effectively identified copper anomalous zones within the tenement. o 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	• Further activities are planned from 2021 to 2023: o A total of 9110m are planned to test the down dip and lateral extension of the mineralization of the Southern Orebody. Detailed mining and investment studies have been ongoing in 2021.

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 on their respective 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 Competent Person visited the Sokoroshe II 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 II mineral deposit.
Geological interpretation	- There is reasonable confidence in the interpretation of geology which forms the domains used in the Mineral Resource estimate. - 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. - Interpreted geology domains have been used to constrain blocks and grades in the model used for Mineral Resource estimation.
Dimensions	- Mineralisation is interpreted to be up to 650m along strike, 180m down dip and 30m thick. Actual dimensions are expected to vary.
Estimation and modelling techniques	- The estimation method is considered appropriate for oxide and transitional copper mineralisation at Sokoroshe II. The method included Ordinary Kriging for the estimation of Cu, CuAS, and Ratio (CuAS/Cu) within hard boundaries for copper domains, where Cu > 0.4%. Maptek Vulcan software was used for estimation. Quantitative Kriging neighbourhood analysis was applied for the selection of estimation parameters. A minimum of 4 and maximum of 16 sample composites of 1m length were used. Search neighbourhood was an ellipse with orientation comparable to geological domains having a major distance of 100 metres, semi major distance of 100 metres and minor distance of 30 metres, for the first pass. Samples were composited to 1m interval, which is the same as the nominal sample spacing in mineralised rock. Discretisation was set to 8x4x4 (x, y, z). Fe and U were included within Copper domains. Based on drilling during 2019, separate domains were developed for Cobalt, where Co > 0.1%, and similar estimation parameters, as used for copper, were utilised. - Al, Ca, Mg, Mn and S have also been estimated using Ordinary Kriging within individual hard boundary created using Leapfrog software. The variograms were individually calculated and modelled using Isatis software and Estimate parameters set up accordingly. - Check estimates were undertaken as basic dimensions multiplied by the density to give tonnes and grades reported from declustered statistics. In addition, a basic

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
	sectional estimate was conducted prior to block modelling. All results were found to be comparable. • No assumed by-product recovery was applied; however, ratio between CuAS and Cu estimated in the block model. • Block model is not rotated with block size was 20mE by 10mN by 10mRL with sub-blocking to 5mE by 2.5mN by 2.5mRL. The block size provides a reasonable representation of the interpreted mineralised domains. Block size is less than the drill hole spacing of approximately 40m sections with holes spaced 40 metres on section. However, samples are spaced at approximately 1 metre intervals down hole. • Selective mining units have not been modelled. • No assumptions have been made about correlation of variables • Geological interpretation is represented by lithological triangulations that have been used for the construction of block model domains and selection of sample composites, and used for coding of Bulk Density values • No grade cutting or capping was applied for mineralised domains Cu and CuAs; although grade distributions for are positively skewed but the coefficient of variation is low (0.86) and arguably no grade restriction is required. However, grade capping was applied to waste domain and several variable such Co Mg and Mn to control the influence of outlier values into block estimates. • Block model domains were compared against domain wireframes and found to be suitably constructed. Estimated block grades were compared against drill hole grades on sections and plans and found to be comparable. Statistics for composite samples and blocks were also compered and found to be comparable.
Moisture	• Estimated tonnes are on a dry basis.
Cut-off parameters	• The Mineral Resource has been reported above a total copper cut-off grade of 0.8%. Additional cobalt Mineral Resource (outside of the copper cut-off of 0.8%), has been reported above a total cobalt cut-off grade of 0.2%. • The reported Mineral Resources have also been constrained within a US$3.62/lb copper and US$25.79/lb cobalt whittle pit shell. The reporting cut-off grade and the pit-shell price assumption are in line with MMG's policy on reporting of Mineral Resources which is prospective for future economic extraction.
Mining factors or assumptions	• The mining method is assumed to be open pit with trucks and excavators.
Metallurgical factors or assumptions	• Sokoroshe II ore is intended to be processed at Kinsevere Mine shortly after the implementation of the Kinsevere Expansion Project (currently pending board approval). • Sokoroshe II ore is relatively simple in composition (malachite with minor chalcocite/bornite) and very similar to the oxides and transitional sulphides present at Kinsevere.

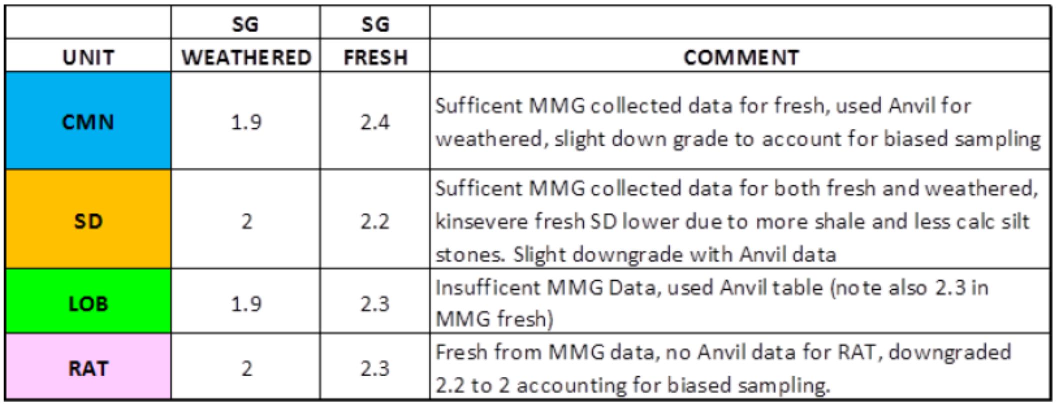
Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
	• At this stage of project development metallurgical recovery assumptions are based on KEP recoveries. • As such, the criteria impacting the resource cut-off grades and reportable pit shell inputs are based on the proposed Kinsevere Expansion Project (KEP) flowsheet and infrastructure upgrades. The upgraded flowsheet will consist of the following changes: - Oxide pre-flotation circuit and leach tank modifications 2.2Mtpa - 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 • The estimated plant recoveries are as follows: *(see table below)* ** ASCu refers to the sulphuric acid soluble portion of copper content within the sample mass** *'Ratio' refers to the ratio of ASCu:TCu*
Environmental factors or assumptions	• Environmental factors include increased land surface disturbance and 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.



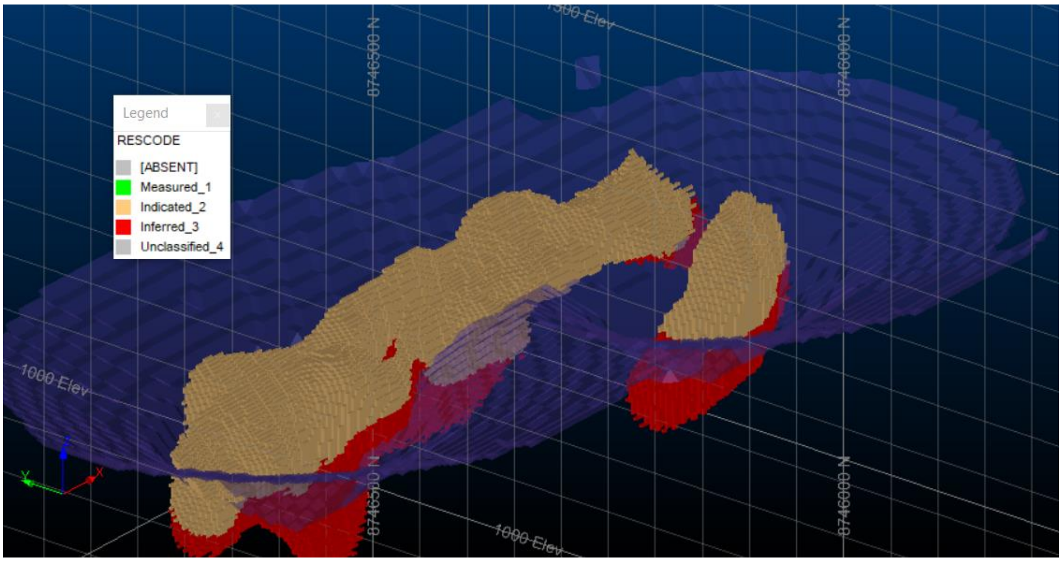
Recovery Description	Unit	Comment	
Sulphide Circuit Flot Copper Recovery (Ratio<0.4 / 0.2 - plan / target)	%	Calc	>10% ASCu/Tcu; the recovery = 96 - 94 * ASCu/TCU <10% ASCu/Tcu; the recovery = 94 -57 * ASCu/Tcu
Sulphide Circuit Flot Cobalt Recovery (Ratio<0.4 / 0.2 - plan / target)	%	Calc	>10% ASCu/Tcu; 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	

<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>Bulk density</td><td>

Bulk density measurements have been undertaken using weight in air and weight in water. The samples measured have also included wax immersion to prevent over estimation due to the porous nature of oxide samples. Samples are also oven dried prior to measurement.
However, at this point the number of bulk density data is not sufficient for interpolation. Investigation of results shows that insufficient information was collected for the weathered CMN and LOB stratigraphic units. This was due to the material being too friable for collecting reliable bulk density measurements. As a result, data from correlative stratigraphy in Nambulwa and DZ was considered, as well as information from the Anvil bulk sampling program published in the Anvil NI43-101 report. The Table below shows the bulk densities assigned to each of the weathered and fresh correlatives of the stratigraphic successions hosting Sokoroshe II mineralisation. The block model was flagged by weathering and geology domains with each assigned the relevant bulk density.
Bulk Density Values used for the Sokoroshe II 2020 Mineral Resource Model


<table>
<tr><th>UNIT</th><th>SG
WEATHERED</th><th>SG
FRESH</th><th>COMMENT</th></tr>
<tr><td>CMN</td><td>1.9</td><td>2.4</td><td>Sufficent MMG collected data for fresh, used Anvil for weathered, slight down grade to account for biased sampling</td></tr>
<tr><td>SD</td><td>2</td><td>2.2</td><td>Sufficent MMG collected data for both fresh and weathered, kinsevere fresh SD lower due to more shale and less calc silt stones. Slight downgrade with Anvil data</td></tr>
<tr><td>LOB</td><td>1.9</td><td>2.3</td><td>Insufficent MMG Data, used Anvil table (note also 2.3 in MMG fresh)</td></tr>
<tr><td>RAT</td><td>2</td><td>2.3</td><td>Fresh from MMG data, no Anvil data for RAT, downgraded 2.2 to 2 accounting for biased sampling.</td></tr>
</table>
</td></tr>
</table>

Section 3 Estimating and Reporting of Mineral Resources

Criteria	Commentary
Classification	• The entire Sokoroshe II Mineral Resource has been classified as Indicated and Inferred and is supported by drill hole spacing and variogram analysis. • The classification also takes into account the spatial distribution of data as well as estimation metrics including kriging variance and kriging slope of regression. • The classification is supported by the Competent Persons view of the deposit and the available data.  *Figure 7: Indicated and Inferred Material – within reporting Mineral Resource Whittle Pit Shell*
Audits or reviews	• No external audits or reviews of this Mineral Resource estimate have been undertaken.
Discussion of relative accuracy/ confidence	• Mineral Resource Classification of Indicated and Inferred material is supported by additional infill drilling and geostatistical analysis including variograms that produce ranges less than the drill spacing and low values for Kriging slope of regression and Kriging efficiency along with high Kriging variance. • The review of tonnage accuracy is required since the bulk density has been assigned from various sources, due to friable nature of the majority of sample collected at site. • The estimate relates to global estimation and is not suitable as a local estimate. Additional drilling is required before a local estimate can be delivered. • No production data is available for comparison.

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, Samson Malenga, confirm that I am the Competent Person for the Sokoroshe II 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 Member of The Geological Society of South Africa Reg No. 965948 and I am a Registered Professional Natural Scientist with the South African Council for Natural Scientific Professions (SACNASP) – Reg No 400181/06.
- I have reviewed the relevant Sokoroshe II Mineral Resource section of this Report to which this Consent Statement applies.

I am a full-time employee of MMG Limited 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 Sokoroshe II 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 Sokoroshe II 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 II 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 2021* – with the author's approval. Any other use is not authorised.

____

Samson Malenga, BSc. Hons (Geol.),MBL, Pr.Sci.Nat, FGSSA

8/10/2021

Date:______________________________

This signature was scanned for the exclusive use in this document – the *MMG Mineral Resource and Ore Reserve Statement as at 30 June 2021* – with the author's approval. Any other use is not authorised.

____

Signature of Witness:

Serge Djemo
Lubumbashi, DRC

____

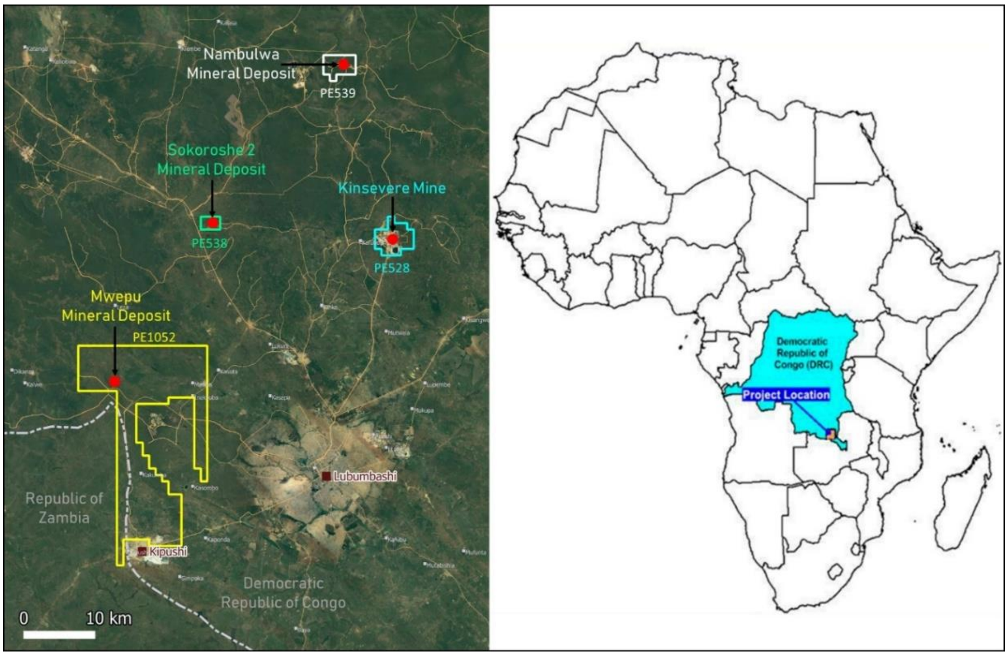
Witness Name and Residence: (e.g. town/suburb)

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 GECAMINES 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 GECAMINES in late 2019, extending the term of the agreement to March 2022.

8.2 Mineral Resources – Mwepu

8.2.1 Results

The 2021 Mwepu Mineral Resource is summarised in Table 25. There are no Ore Reserves for the Mwepu deposit.

Table 25 2021 Mwepu Mineral Resource tonnage and grade (as at 30 June 2021)

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	0.86	2.4	1.8	0.18	20	16	1.5
Inferred	0.57	2.4	1.7	0.28	14	10	1.6
Total	1.4	2.4	1.8	0.22	34	25	3.1
Mwepu Oxide Cobalt[3]							
Measured							
Indicated	0.10	0.6	0.2	0.32	0.6	0.2	0.3
Inferred	0.12	0.6	0.3	0.33	0.7	0.3	0.4
Total	0.22	0.6	0.3	0.33	1.3	0.6	0.7
Mwepu Primary Cobalt[3]							
Measured							
Indicated	0.07	0.25	0.03	0.31	0.18	0.02	0.23
Inferred	0.20	0.27	0.03	0.41	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**				**35**	**26**	**3.8**

[1] AS stands for Acid Soluble

[2] 0.89% Cu cut-off grade

[3] 1.0% Co cut-off grade

[4] 0.3% Co cut-off grade

All Mineral Resources except stockpiles are contained within a US$3.68/lb Cu and US$30.24/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 2021

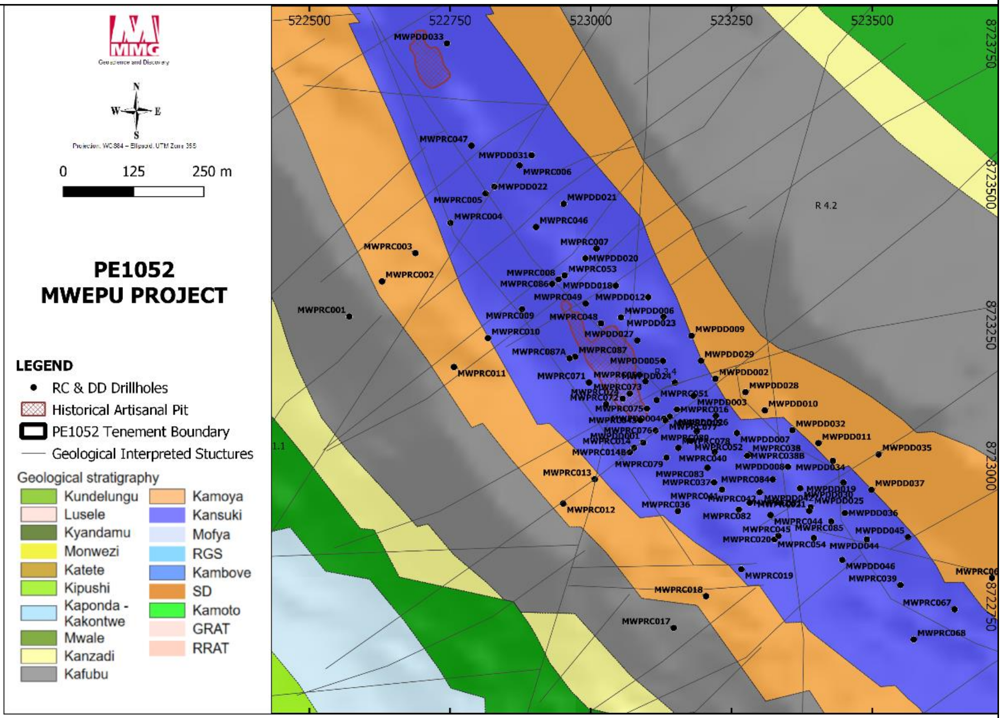
Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
Sampling techniques	• A combination of reverse circulation drilling (RC) and diamond drilling (DD) was completed at the Mwepu Project. • Mineralized zones within the drill core were identified based on a combination of lithological, mineralogical, 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 up to 2-4m 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 intervals. • Samples were crushed, split and pulverized (>85% passing 75 µm) at an ALS 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.
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, core recovery averaged 77%, and below 50m, core recovery averaged 87%.

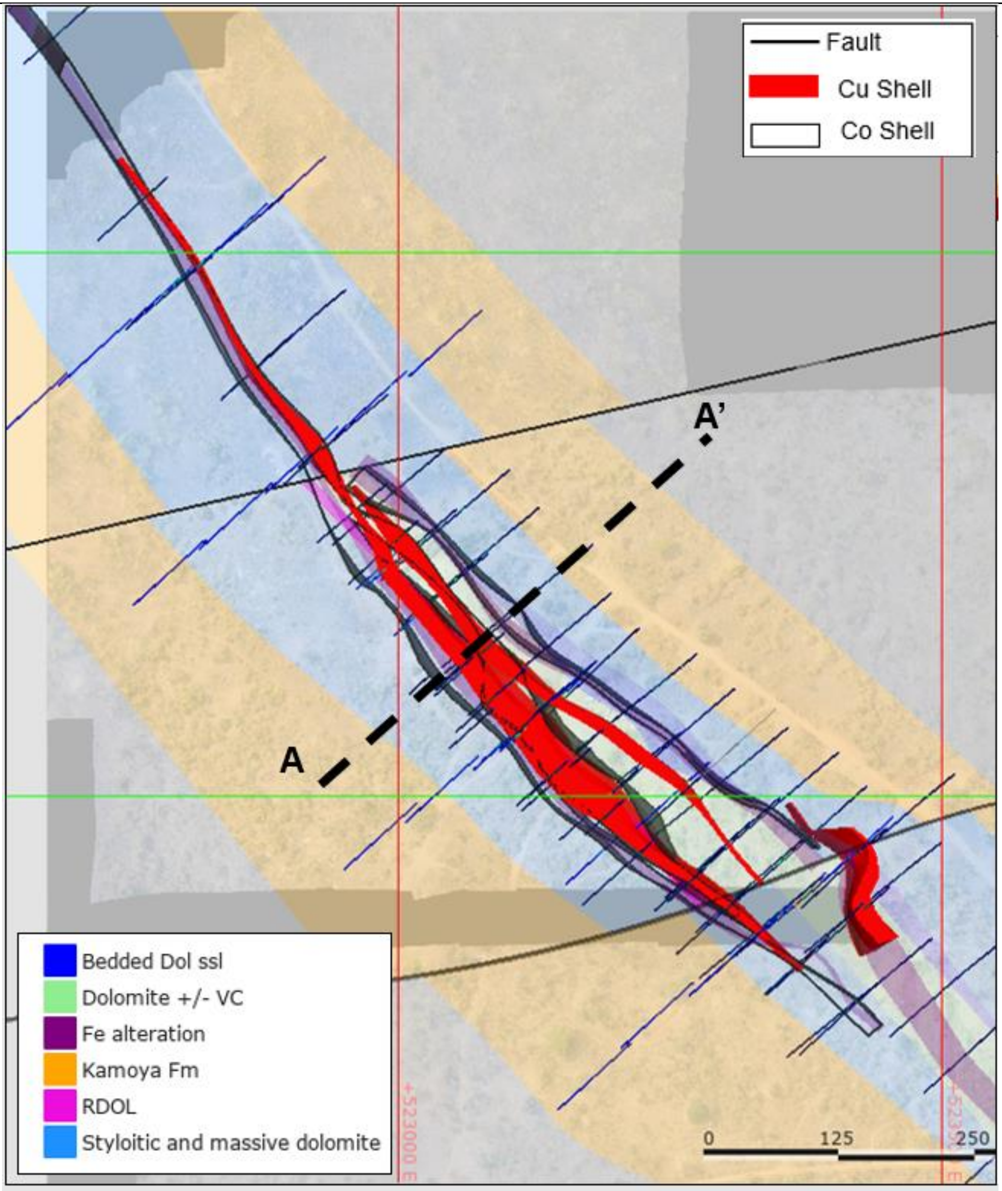
Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	- Actual vs. recovered drilling lengths were captured by the driller and an onsite rig technician using a measuring tape. Measured accuracy was down to 1cm. The core recoveries were calculated in a digital database during export. - Sample 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 Using the triple tube methodology in the 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, color 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 meter 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. - For RC drilling, field duplicates were inserted at a rate of approximately 5% to ensure sampling precision was measured.

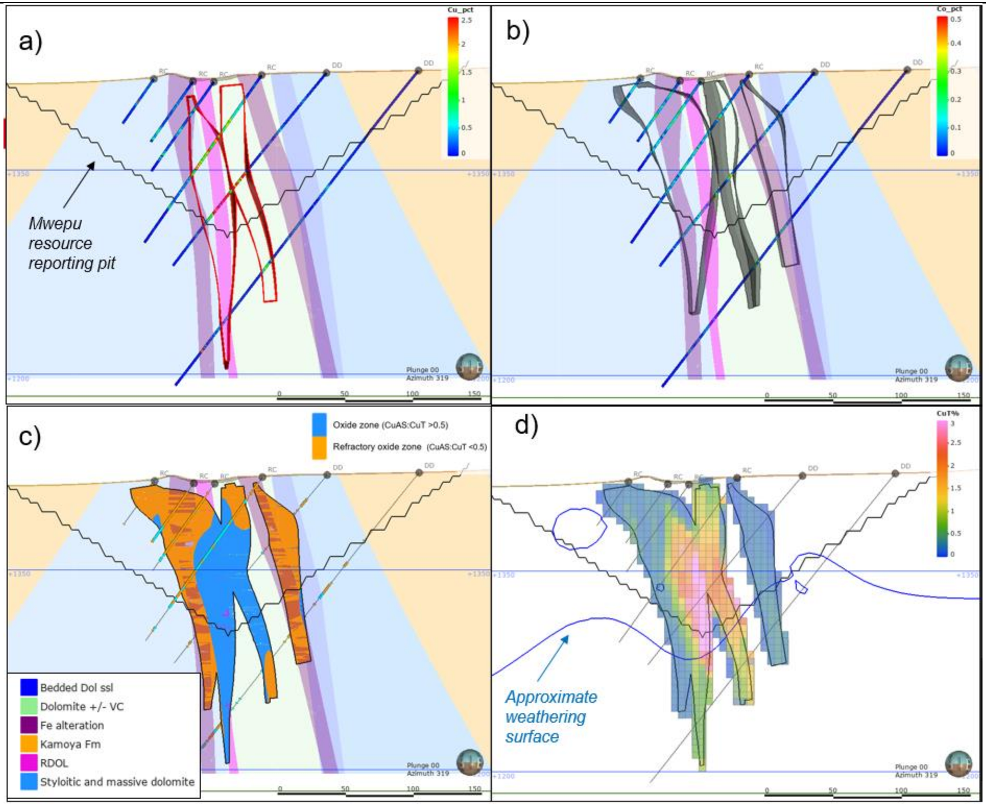
Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	• Samples from individual drillholes were sent in a single dispatch to the onsite ALS laboratory at the MMG core yard facility in Lubumbashi. • Samples were received, recorded on the sample sheet, weighed, and dried at 105°C for 4 to 8 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 pulverize to >85% passing 75 microns. QC grind checks were carried out using wet sieving at 75 microns on 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 materials (high, medium, and low copper grades) were also inserted and submitted to ALS for analysis at a rate of 3 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 • The TN14 GYROCOMPASS™ was used to align the drill rig to the correct azimuth and dip angles.

Section 1 Sampling Techniques and Data	
Criteria	**Commentary**
	• 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	• Drilling sections are spaced at nominally ~50m or ~100m. Down dip drill hole spacing is nominally ~50m. • 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	• DD and RC drillholes were mainly drilled with dips of between -48° and -55° to intersect generally steeply dipping mineralization. Drilling azimuths were as close as practical to orthogonal to the mineralized trend. • In the view of the Competent Person, no bias has been introduced by the drilling direction.
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 and to avoid possible shifting of core during transport. • RC chip sampling was conducted in the field. Chip samples were packed in a labelled plastic bag along with a labelled plastic ID tag. • The plastic bag was 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.

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 GECAMINES 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 GECAMINES in late 2019, extending the term of the agreement to March 2022. The Exploration and project study teams are currently in the process of compiling the Feasibility Study report to be submitted to GECAMINES. The report is a requirement for a decision to be made to extend the term of the agreement beyond March 2022.
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 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. • Oxide copper mineralogy includes malachite and copper bearing clays. Oxide cobalt is often associated with Mn-Fe rich clays. • 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	• A complete listing of all drillhole information on the Mwepu Project is provided in Table 2 below.
Data aggregation methods	• Significant copper intersections were reported at a 0.5% total Cu cut-off at a minimum width of 3m, with up to 3m internal dilution permitted. • Significant cobalt intersections were reported at a 0.2% total Co cut-off at a minimum width of 3m, with up to 3m internal dilution permitted.
Relationship between mineralisation width and intercept lengths	• All original exploration results were reported in drilled lengths and should not be considered as true widths of the mineralized zones. This was due to a significant degree of inherent complexity and the low level of understanding of the geological model at the time. However, with recent increases of understanding in the geological model, all future drilling intercepts can be reported as true widths.

Section 2 Reporting of Exploration Results	
Criteria	**Commentary**
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.**

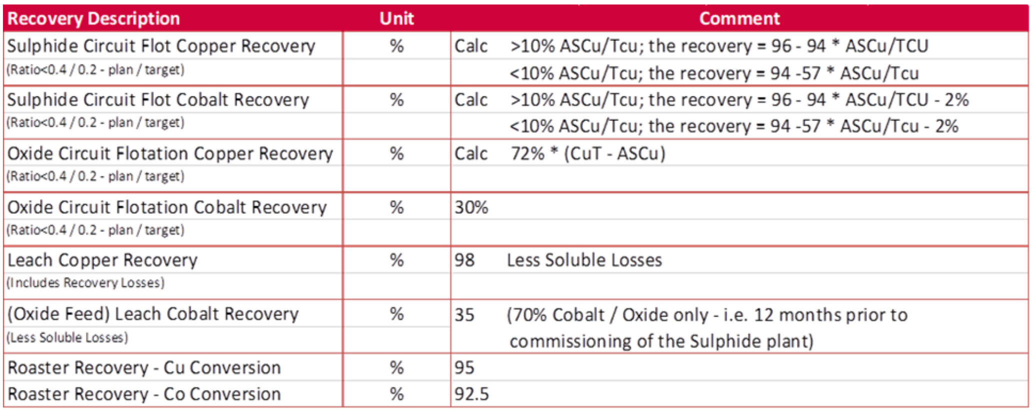
Section 2 Reporting of Exploration Results	
Criteria	**Commentary**
	 **Cross section through Mwepu Cu-Co deposit at 8723130mN showing:** a) Outline of the copper grade shell with downhole copper assays relative to geology and reporting pit b) Outline of the cobalt grade shell with downhole cobalt assays relative to geology and reporting pit c) Interpreted ore type volumes within downhole CuAS:CuT ratio data relative to geology and reporting pit d) Distribution of copper within the 2020 Mwepu MRE relative to geology and approximate weathering surface.
Balanced reporting	• Complete tables of exploration results have been previously released publicly and can be found in MMG's https://www.mmg.com/wp-content/uploads/2020/01/MMG-Fourth-Quarter-Production-Report-19.pdf on www.mmg.com
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 neighboring 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 subgroup) that are the main host rock to the Cu-Co mineralization. These units are in the core

Section 2 Reporting of Exploration Results	
Criteria	**Commentary**
	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 x 200m grid and 200X100m was completed in 2018 which identified copper and cobalt anomalous zones within the tenement.
Further work	- Further exploration activities are planned for the 2020 exploration season: o Infill drilling to improve confidence levels of resource estimations. o Metallurgical test work on drill core and bulk samples to ascertain milling and processing characteristics. o Geotechnical drilling to assess pit wall characteristics for mine planning. o Preliminary economic assessment 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 GM logging profiles having strong internal validation criteria. The technician/geologist conducts first validation steps by checking intervals, description and accuracy of records on their respective Toughbooks®. - 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 were complete for all of the drillholes. o Examining the desurveyed data in three dimensions to check for spatial errors. o 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. o 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. o Checks for excessive mineralised sample lengths. o Checks for unsampled drillholes.

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
Site visits	• The Competent Person has not visited the site but has visited the Kinsevere deposit and several other oxide copper deposits in the Katanga province, which are also similar in style to the Mwepu mineral deposit.
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 1,055 m. • The modelled copper mineralisation is between approximately 10 m and 70 m wide. • Mineralisation generally occurs 10 m to 40 m below surface along most of the strike length, with it outcropping in some locations. The mineralisation extends from 80 m to 220 m 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 1 m. • Top cuts were applied to statistical outliers where necessary. • The wireframe models were filled within a rotated block model (320 degrees), 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 KNA. • A minimum of 10 and a maximum of 20 composites were found to be optimal for estimation through KNA. • Search distances at 90% of the variogram ranges were used for the estimation. • A similar neighbourhood was used in the estimation of 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 a 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 leachability wireframe. Total cobalt and cobalt soluble assays also showed good correlation with one another. The acid soluble

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
	copper estimates were controlled by domains based on the leachability and copper domain wireframe. The leachability 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 independent of each other. • 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 200 m 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 50 m slices through the deposit. • No reconciliation data is available as no mining has occured.
Moisture	• Estimated tonnes are on a dry basis.
Cut-off parameters	• The Mineral Resource has been reported above a total copper cut-off grade of 1.1%. Additional cobalt Mineral Resource (outside of the copper cut-off), has been reported above a total cobalt cut-off grade of 0.3%. • The reported Mineral Resources have also been constrained within a US$3.62/lb copper and US$25.79/lb cobalt whittle pit shell. The reporting cut-off grade and the pit-shell price assumption are in line with MMG's policy on reporting of Mineral Resources which is prospective for future economic extraction.
Mining factors or assumptions	• The mining method is assumed to be open pit with trucks and excavators
Metallurgical factors or assumptions	• Mwepu ore is intended to be processed at Kinsevere Mine shortly after the implementation of the Kinsevere Expansion Project (currently pending board approval). • Preliminary metallurgical tests have been conducted and results indicate similar recoveries to those used in the Kinsevere Expansion Project (KEP) for CuAS and CoT. However, at Mwepu, the non-CuAS component is comprised of copper hosted in clays, Mn-Fe WAD, silicates and sulphides. As such, recovery of the non-CuAS component is complex. Further met test work is currently being undertaken to optimise recovery of the non CuAS. • At this early stage of project development, metallurgical recovery assumptions are based on KEP recoveries. This is subject to change as additional mettalurgical test work is completed and as ore body understanding improves. • KEP recoveries are based on the proposed Kinsevere Expansion Project (KEP) flowsheet and infrastructure upgrades. The upgraded flowsheet will consist of the following changes:

<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>
o Oxide pre-flotation circuit and leach tank modifications 2.2Mtpa
o Oxide leach upgrades to convert to reductive leach conditions
o Sulphide Concentrator 2.2Mtpa capacity
o Roaster circuit including off-gas cleaning, acid plant and concentrate storage
o Cobalt Recovery circuit to produce high grade Cobalt hydroxide
o SX plant modifications
• Predicted plant recoveries are as follows:

<table>
<tr><th>Recovery Description</th><th>Unit</th><th>Comment</th></tr>
<tr><td>Sulphide Circuit Flot Copper Recovery
(Ratio<0.4 / 0.2 - plan / target)</td><td>%</td><td>Calc >10% ASCu/Tcu; the recovery = 96 - 94 * ASCu/TCU
<10% ASCu/Tcu; the recovery = 94 -57 * ASCu/Tcu</td></tr>
<tr><td>Sulphide Circuit Flot Cobalt Recovery
(Ratio<0.4 / 0.2 - plan / target)</td><td>%</td><td>Calc >10% ASCu/Tcu; the recovery = 96 - 94 * ASCu/TCU - 2%
<10% ASCu/Tcu; the recovery = 94 -57 * ASCu/Tcu - 2%</td></tr>
<tr><td>Oxide Circuit Flotation Copper Recovery
(Ratio<0.4 / 0.2 - plan / target)</td><td>%</td><td>Calc 72% * (CuT - ASCu)</td></tr>
<tr><td>Oxide Circuit Flotation Cobalt Recovery
(Ratio<0.4 / 0.2 - plan / target)</td><td>%</td><td>30%</td></tr>
<tr><td>Leach Copper Recovery
(Includes Recovery Losses)</td><td>%</td><td>98 Less Soluble Losses</td></tr>
<tr><td>(Oxide Feed) Leach Cobalt Recovery
(Less Soluble Losses)</td><td>%</td><td>35 (70% Cobalt / Oxide only - i.e. 12 months prior to commissioning of the Sulphide plant)</td></tr>
<tr><td>Roaster Recovery - Cu Conversion</td><td>%</td><td>95</td></tr>
<tr><td>Roaster Recovery - Co Conversion</td><td>%</td><td>92.5</td></tr>
</table>
• * ASCu refers to the sulphuric acid soluble portion of copper content within the sample mass.
• * ‘Ratio’ refers to the ratio of ASCu:TCu
</td></tr>
<tr><td>Environmental factors or assumptions</td><td>• Environmental factors include increased land surface disturbance and 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.</td></tr>
<tr><td>Bulk density</td><td>• 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 were assigned to the block model based on stratigraphy and weathering.</td></tr>
<tr><td>Classification</td><td>• 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 and 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.</td></tr>
<tr><td>Audits or reviews</td><td>• No external audits or reviews of this Mineral Resource estimate have been undertaken.</td></tr>
</table>

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Commentary**
Discussion of relative accuracy/ confidence	• The Indicated Mineral Resources are informed by a drill 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. • 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, Samson Malenga, 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 Member of The Geological Society of South Africa Reg No. 965948 and I am a Registered Professional Natural Scientist with the South African Council for Natural Scientific Professions (SACNASP) – Reg No 400181/06.
- 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 MMG Limited 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 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 my supporting documentation relating to the Mwepu 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 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 2021* – with the author's approval. Any other use is not authorised

8/10/2021

Date:____

Samson Malenga, BSc. Hons (Geol.),MBL, Pr.Sci.Nat, FGSSA

This signature was scanned for the exclusive use in this document – the *MMG Mineral Resource and Ore Reserve Statement as at 30 June 2021* – with the author's approval. Any other use is not authorised.

Serge Djemo
Lubumbashi, DRC

Signature of Witness:

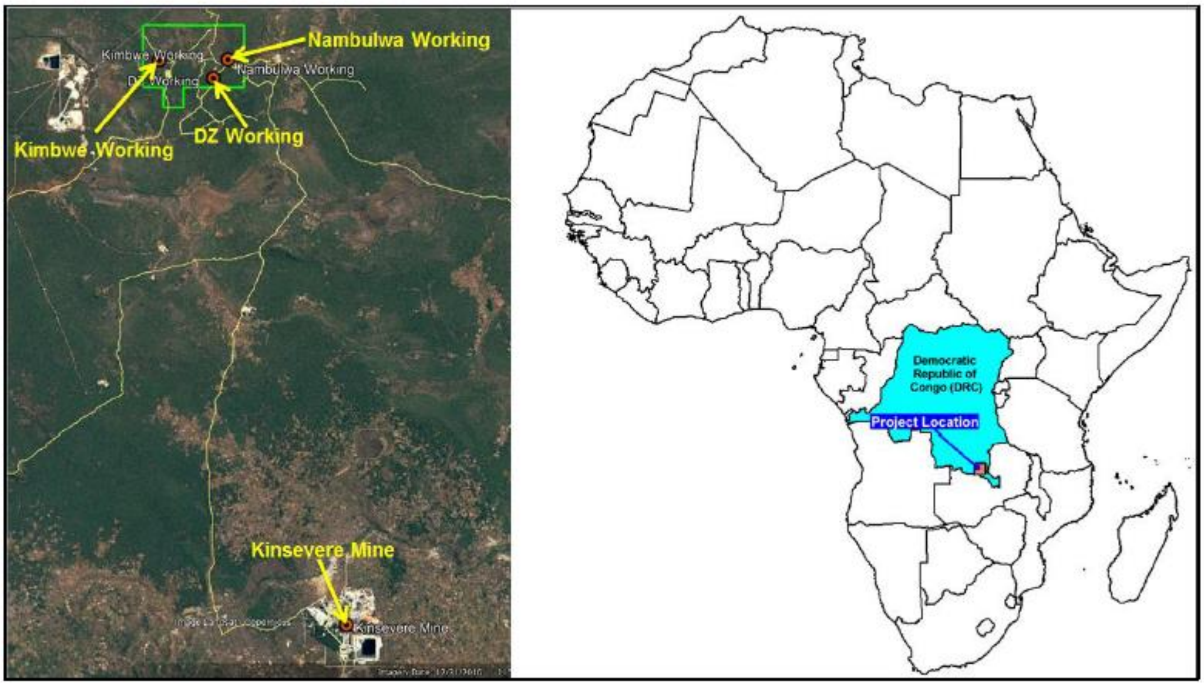
Witness Name and Residence: (e.g. town/suburb)

9 NAMBULWA / DZ

9.1 Introduction and Setting

The Nambulwa and 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). However, MMG was unable to continue exploring the tenement due to security threats by artisanal miners. Following this, MMG negotiated its exploration rights over PE539 with various government agencies and subsequently managed to regain full control over the tenement. As a result, all mining cooperatives and artisanal miners were evicted from the tenement and the area was secured by about 40 Mine Police under contract from MMG.

9.2 Mineral Resources – Nambulwa / DZ

9.2.1 Results

The 2021 Nambulwa/DZ Mineral Resources are summarised in Table 27 2021 Nambulwa/DZ Mineral Resources tonnage and grade (as at 30 June 2021). There are no Ore Reserves for Nambulwa/DZ deposits.

Table 27 2021 Nambulwa/DZ Mineral Resources tonnage and grade (as at 30 June 2021)

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	1.0	2.2	2.0	0.1	23	21	1.2
Inferred	0.1	1.9	1.7	0.1	1.7	1.5	0.1
Total	**1.1**	**2.2**	**2.0**	**0.1**	**25**	**23**	**1.3**
Nambulwa Oxide Cobalt[3]							
Measured							
Indicated	0.17	0.15	0.12	0.27	0.25	0.20	0.46
Inferred	-	-	-	-	-	-	-
Total	**0.17**	**0.15**	**0.12**	**0.27**	**0.25**	**0.20**	**0.46**
DZ Oxide Copper[2]							
Measured	-	-	-	-	-	-	-
Indicated	0.79	2.0	1.8	0.13	16	14	1.0
Inferred	0.036	2.0	1.8	0.13	0.73	0.63	0.05
Total	**0.82**	**2.0**	**1.8**	**0.13**	**17**	**15**	**1.0**
DZ Oxide Cobalt[3]							
Measured	-	-	-	-	-	-	-
Indicated	0.35	0.26	0.19	0.27	0.90	0.65	0.94
Inferred	-	-	-	-	-	-	-
Total	**0.35**	**0.26**	**0.19**	**0.27**	**0.90**	**0.65**	**0.94**
Combined Total	**2.5**				**43**	**38**	**3.7**

[1] AS stands for Acid Soluble

[2] 0.76% Cu cut-off grade

[3] 0.2% Co cut-off grade

All Mineral Resources except stockpiles are contained within a US$3.68/lb Cu and US$30.24/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 2021

Section 1 Sampling Techniques and Data	
Criteria	**Explanation**
Sampling techniques	• The Mineral Resources uses a combination of reverse circulation (RC) and drilling diamond drilling (DD) to inform the estimates. • 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 up to 2-4m 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 ALS 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 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 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.

Section 1 Sampling Techniques and Data	
Criteria	**Explanation**
	- 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. Below 50m, core recovery averaged 85%, and below 100m, core recovery averaged 89%. - Actual vs. recovered drilling lengths were captured by the driller and an onsite rig technician using a tape measure. Measured accuracy was down 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 methodology in the core barrel. 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.
Sub-sampling techniques and	- DD core was split in half longitudinally (HQ size) or quartered (PQ size) using an Almonte automatic diamond saw.

Section 1 Sampling Techniques and Data	
Criteria	**Explanation**
sample preparation	• 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 meter 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 onsite ALS 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 75 microns. QC grind checks were carried out using wet sieving at 75 microns on 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 materials (high, medium, and low copper grades) were also inserted and submitted to ALS for analysis at a rate of 3 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. • No geophysical tools, spectrometers, or portable XRF instruments have been used for estimation purposes.

Section 1 Sampling Techniques and Data	
Criteria	**Explanation**
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 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	• Drill spacing is variable between prospects. Average drill hole data are spaced at ~50 to 100m between drill sections. Holes on sections are spaced at ~25-50m apart. • 2 m or 4 m 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 with dips 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. • In the view of the Competent Person, no bias has been introduced by the drilling direction.
Sample security	• Samples were transported from the field and delivered to the sample processing facility in Lubumbashi for cutting and preparation. A single cab pick-up was used for the transport. 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 a labelled plastic bag along with a labelled plastic ID tag. • The plastic bag was 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	**Explanation**
	- 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 has been reviewed by the Competent Person as part of this Mineral Resource estimate. 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% Gecamines) in the DRC. The lease was acquired by MMG as part of the Kinsevere Amodiation agreement with Gecamines. The tenement is valid through to April 3, 2024.
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. - Gecamines 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 or 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 stratigraphic rock types.

Section 2 Reporting of Exploration Results	
Criteria	**Status**
	• 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 and within
Drill hole information	• All drillhole information has been considered in estimating the Mineral Resource, and as this is a Mineral Resource report and not a public report of individual exploration results a full listing of results is not provided here.
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.
Relationship between mineralisation width and intercept lengths	• This is a Mineral Resource estimate and no down hole length intervals are reported separately. All intervals have been considered within mineralised domains for the estimation of grades within the Mineral Resource. • DD and RC drillholes were predominantly drilled with dips 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.

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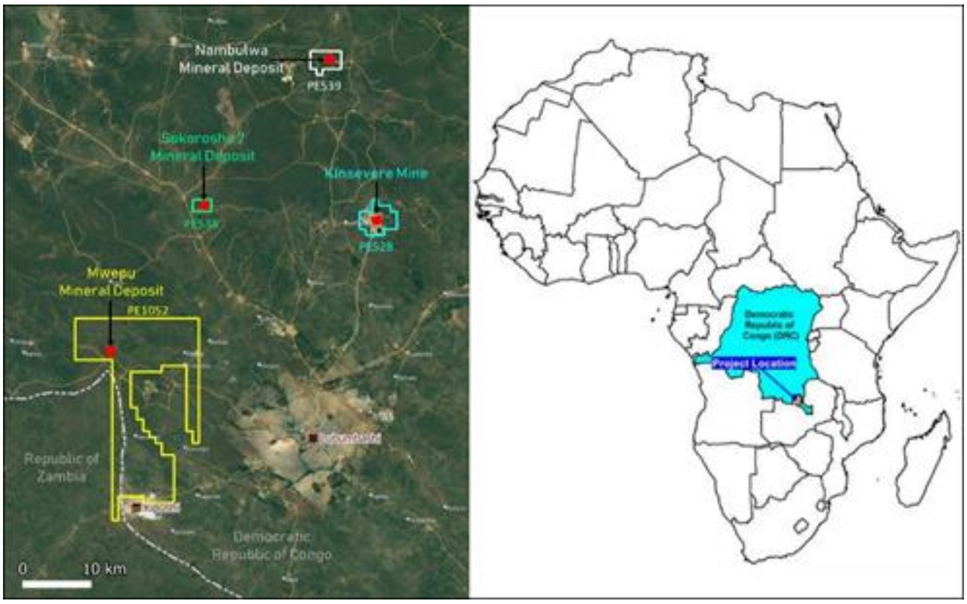

Figure 1: Nambulwa project location map.

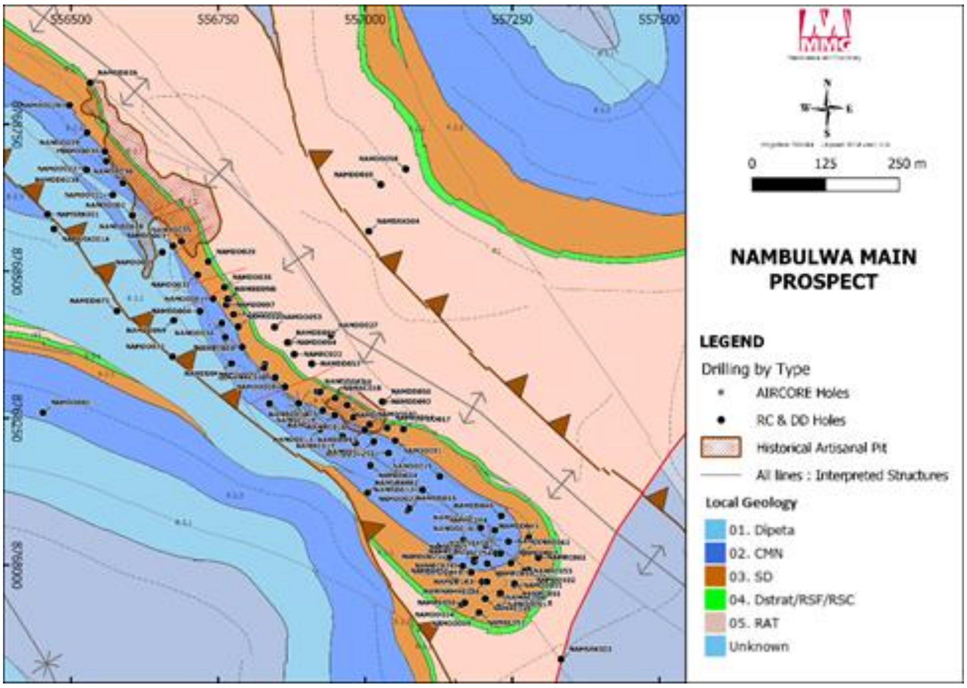

Figure 2: Geology map and drill hole locations on the Nambulwa Main prospect.
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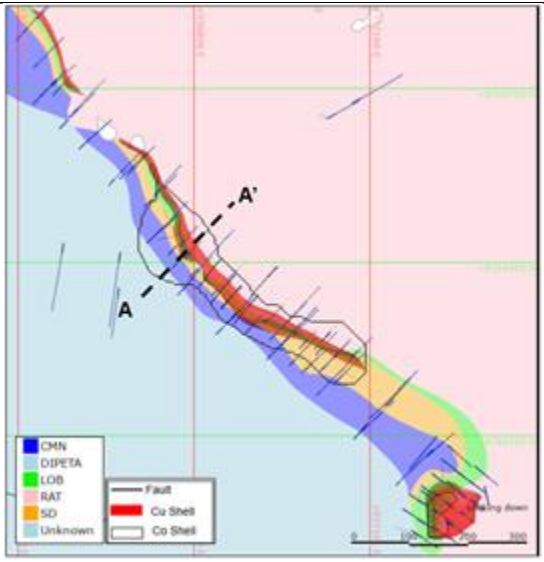


Figure 3: Nambulwa Main geology and copper & cobalt grade shells. The dashed line designated A – A' is the location of the cross section shown in the following figure.

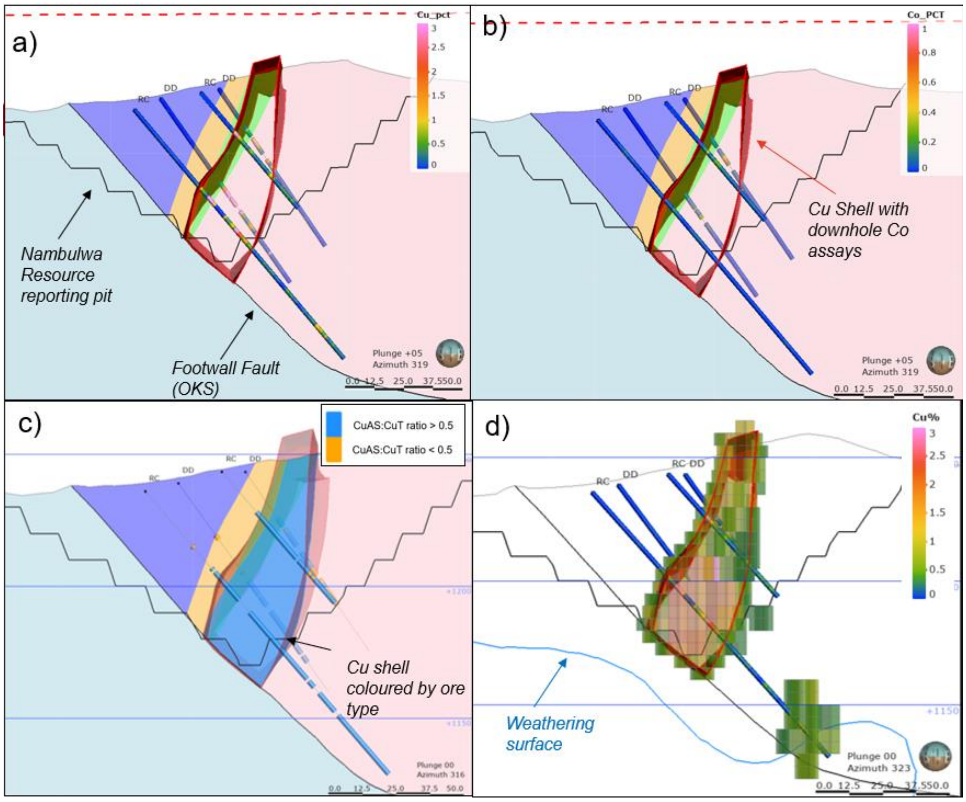


Figure 4: Cross section through Nambulwa Main Cu deposit at 8768415mN (30m slice) showing:

a. Outline of the copper grade shell with downhole copper assays relative to geology and reporting pit

b. Outline of the copper grade shell (no cobalt shell at Nam) with downhole cobalt assays relative to geology and reporting pit

c. Copper shell coloured by ore type with downhole CuAS:CuT ratio data relative to geology and reporting pit

d. Distribution of copper within the 2020 Nambulwa MRE showing blocks > 0.4% CuT. Note model has been regularised.*

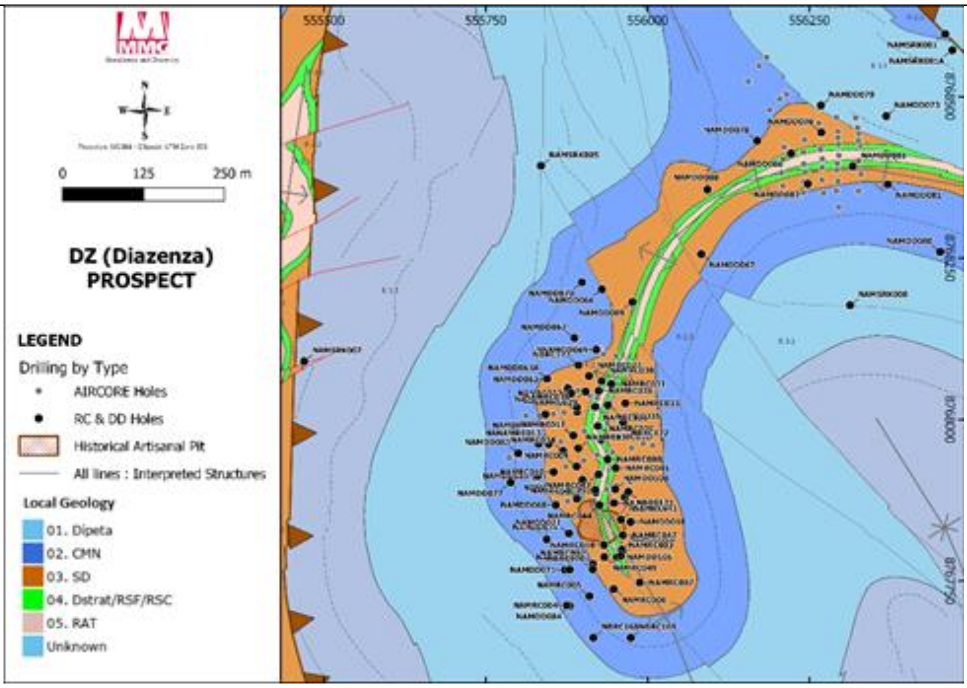


Figure 5: Geology map and drill hole locations on the DZ (Diazenza) prospect.

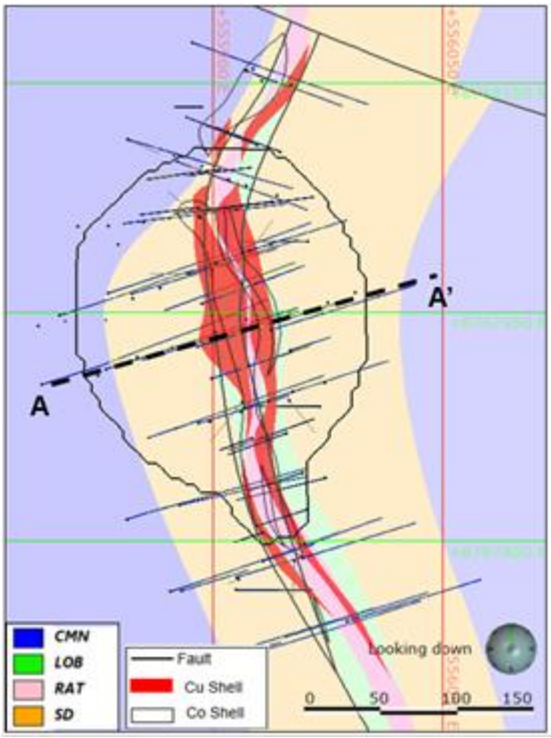
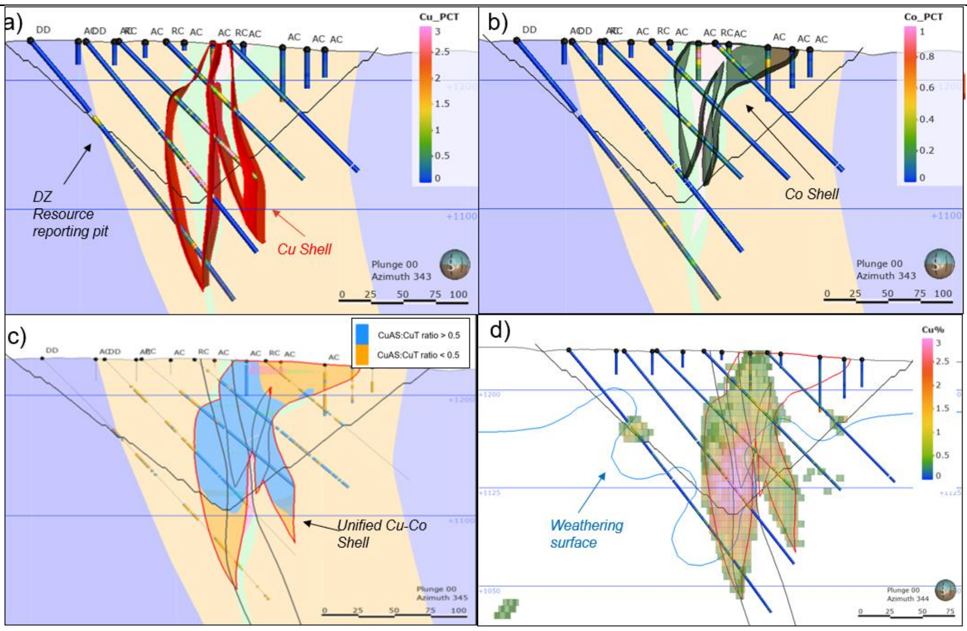


Figure 6: DZ geology and copper & cobalt grade shells. The dashed line designated A – A' is the location of the cross section shown in the following figure.

Section 2 Reporting of Exploration Results	
Criteria	**Status**
	 *Figure 7: Cross section through DZ Cu deposit at 8767930mN, showing:* *a. Outline of the copper grade shell with downhole copper assays relative to geology and reporting pit* *b. Outline of the cobalt grade shell with downhole cobalt assays relative to geology and reporting pit* *c. Unified Cu-Co shell coloured by ore type with downhole CuAS:CuT ratio data relative to geology and reporting pit* *d. Distribution of copper within the 2020 DZ MRE showing blocks > 0.4% CuT. Note* model has been regularised.*
Balanced reporting	• This is a Mineral Resource estimate and not a report of exploration results. • 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.
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 x 100m grid was completed in 2014, which effectively identified copper anomalous zones within the tenement. Additional geochemical surveys include 50m x 50m soil sampling 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.

Section 2 Reporting of Exploration Results	
Criteria	**Status**
Further work	• Further work on Nambulwa and DZ will focus on advancing the project to Pre-feasibility level study. 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.

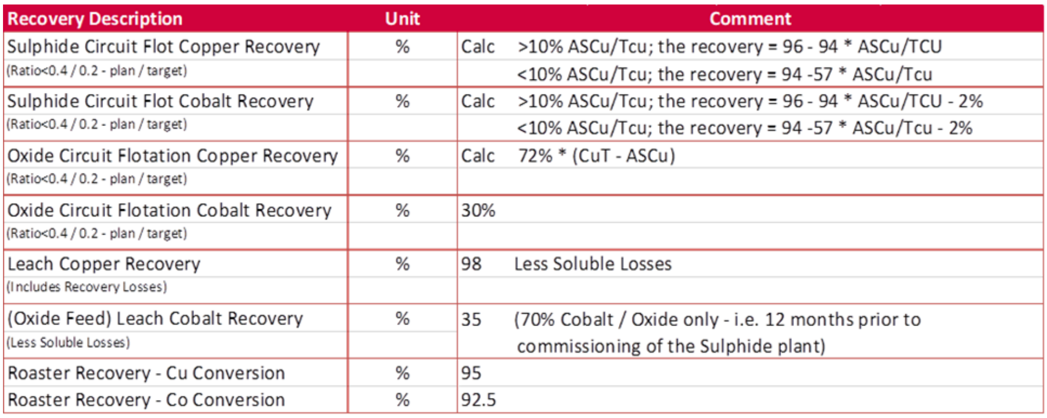
Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Status**
Database integrity	• The MMG Exploration database systems are SQL server and Geobank (Micromine) management software. All geological and analytical data are managed in MMG's Corporate Geoscience Database. GIS data are stored in secure shared folders on 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.
Site visits	• The 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.
Geological interpretation	• High degree of confidence in the lithological model and geological setting. • Grade shell have been constructed aligned with the stratigraphy although they can cross cut stratigraphic contacts. • A 0.5% total copper threshold was used for copper grade shell 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 1.1 km. • The modelled copper mineralisation is between approximately 2 m and 15 m wide. Cobalt mineralisation reached 40 m wide.

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Status**
	• 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 from as deep as 60 m 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 shell 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 used based on multiples of the variogram ranges. • The wireframe models were filled with parent cells 5m x 5m x 5m (X,Y,Z). The parent cells were split to sub-cells of a minimum of 1m x 1m x 1m (X,Y,Z). The drillhole spacing is approximately 25m (Nambulwa) and 50m (DZ) strike at by 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. • Insitu 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 first estimate 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 modern mining occurred and therefore, no reconciliation data is available. - Previous maiden resource estimate was also completed by MSA of Johannesburg and was compared to the current estimate.
Moisture	- Estimated tonnes are on a dry basis with density measurements being in-situ dry bulk densities.
Cut-off parameters	- The Mineral Resources has been reported above a total copper cut-off grade of 0.8%. Additional cobalt Mineral Resource (outside of the copper cut-off of 0.8%), has been reported above a total cobalt cut-off grade of 0.2%. - The reported Mineral Resources have also been constrained within a US$3.62/lb copper and US$25.79/lb cobalt whittle pit shell. The reporting cut-off grade and the pit-shell price assumption are in line with MMG's policy on reporting of Mineral Resources which is prospective for future economic extraction.
Mining factors or assumptions	- The mining method is assumed to be open pit with trucks and excavators.
Metallurgical factors or assumptions	- Nambulwa and DZ ore is intended to be processed at Kinsevere Mine shortly after the implementation of the Kinsevere Expansion Project (currently pending board approval). - Nambulwa and DZ ore is relatively simple in composition (malachite with minor chalcocite/bornite) and very similar to the oxides and transitional sulphides present at Kinsevere. - At this stage of project development metallurgical recovery assumptions are based on KEP recoveries. - As such, the criteria impacting the resource cut-off grades and reportable pit shell inputs are based on the proposed Kinsevere Expansion Project (KEP) flowsheet and infrastructure upgrades. The upgraded flowsheet will consist of the following changes: o Oxide pre-flotation circuit and leach tank modifications 2.2Mtpa o Oxide leach upgrades to convert to reductive leach conditions o Sulphide Concentrator 2.2Mtpa capacity o Roaster circuit including off-gas cleaning, acid plant and concentrate storage

Section 3 Estimating and Reporting of Mineral Resources

Criteria	Status
	- Cobalt Recovery circuit to produce high grade Cobalt hydroxide - SX plant modifications - The estimated plant recoveries are as follows:



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	

** ASCu refers to the sulphuric acid soluble portion of copper content within the sample mass* 'Ratio' refers to the ratio of ASCu:TCu*

Criteria	Status
Environmental factors or assumptions	- Environmental factors include increased land surface disturbance and 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 measured have also included wax immersion to prevent over estimation due to the porous nature of oxide samples. Samples are also oven dried prior to measurement. - Measurements are 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 half way between the nearest mineralised intersection and the unmineralised intersection. - The Mineral Resource was constrained above the interpreted basal fault. - 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.

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	**Status**
Discussion of relative accuracy/ confidence	**For both Nambulwa and DZ** • 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, Samson Malenga, 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 Member of The Geological Society of South Africa Reg No. 965948, and I am a Registered Professional Natural Scientist with the South African Council for Natural Scientific Professions (SACNASP) – Reg No 400181/06.
- 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 MMG Limited 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 Nambulwa and 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 my supporting documentation relating to the Nambulwa and DZ Mineral Resources.

9.2.3.2 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 Nambulwa and DZ 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 2021* – with the author's approval. Any other use is not authorised.

____

Samson Malenga, BSc. Hons (Geol.),MBL, Pr.Sci.Nat, FGSSA

Date: 8/10/2021

This signature was scanned for the exclusive use in this document – the *MMG Mineral Resource and Ore Reserve Statement as at 30 June 2021* – with the author's approval. Any other use is not authorised.

____

Signature of Witness:

Serge Djemo
Lubumbashi, DRC

____

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.