MINERAL RESOURCES AND ORE RESERVES

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 8 to 12, 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 13.

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 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 at Las Bambas, Dugald River and Rosebery 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. 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 zinc grades.

Key changes to the Kinsevere Ore Reserves (contained metal) since the 30 June 2020 estimate are due to the sulphide material being reported for the first time and the inclusion of the remaining insitu oxide and TMO[2] material together with sulphide and TMO stockpiled ores. These new Ore Reserves are the direct result of the successful completion of a Feasibility Study and MMG Board approval of the Kinsevere Expansion Project.

The Kinsevere Expansion Project will include the construction of new facilities to allow the processing of transitional and sulphide copper and cobalt ores which will be integrated with the existing oxide copper processing plant. Cathode copper will continue to be produced by the expanded plant as the saleable product together with cobalt hydroxide for the first time.

Page 14 provides further discussion of the Mineral Resources and Ore Reserves changes.

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.
2. Transitional and Mixed Ores.

MINERAL RESOURCES AND ORE RESERVES CONTINUED

MINERAL RESOURCES[3]

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

Deposit	2021								2020							
	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	0.49	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	320								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							

3. S.I. units used for metals of value, Cu=copper, Zn=zinc, PB=lead, Ag=silver, Au=gold, Mo=molybdenum, Co=cobalt

MINERAL RESOURCES AND ORE RESERVES CONTINUED

MINERAL RESOURCES[4]

Deposit	2021 Tonnes (Mt)	Cu (%)	Zn (%)	Pb (%)	Ag (g/t)	Au (g/t)	Mo (ppm)	Co (%)	2020 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						

4. S.I. units used for metals of value, Cu=copper, Zn=zinc, PB=lead, Ag=silver, Au=gold, Mo=molybdenum, Co=cobalt

MINERAL RESOURCES AND ORE RESERVES CONTINUED

MINERAL RESOURCES[5]

Deposit	2021 Tonnes (Mt)	Cu (%)	Zn (%)	Pb (%)	Ag (g/t)	Au (g/t)	Mo (ppm)	Co (%)	2020 Tonnes (Mt)	Cu (%)	Zn (%)	Pb (%)	Ag (g/t)	Au (g/t)	Mo (ppm)	Co (%)
Sokoroshe II (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								
Sokoroshe II 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
Nambulwa 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

5. S.I. units used for metals of value, Cu=copper, Zn=zinc, PB=lead, Ag=silver, Au=gold, Mo=molybdenum, Co=cobalt

MINERAL RESOURCES AND ORE RESERVES CONTINUED

MINERAL RESOURCES[6]

Deposit	2021 Tonnes (Mt)	Cu (%)	Zn (%)	Pb (%)	Ag (g/t)	Au (g/t)	Mo (ppm)	Co (%)	2020 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	**14.0**	**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**		

6. S.I. units used for metals of value, Cu=copper, Zn=zinc, PB=lead, Ag=silver, Au=gold, Mo=molybdenum, Co=cobalt

MINERAL RESOURCES AND ORE RESERVES CONTINUED

ORE RESERVES[7]

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

Ore Reserves

Deposit	2021								2020							
	Tonnes (Mt)	Cu (%)	Zn (%)	Pb (%)	Ag (g/t)	Au (g/t)	Mo (ppm)	Co (%)	Tonnes (Mt)	Cu (%)	Zn (%)	Pb (%)	Ag (g/t)	Au (g/t)	Mo (ppm)	Co (%)
Las Bambas (62.5%)																
Ferrobamba Primary Copper																
Proved	360	0.61			2.7	0.05	220		422	0.61			2.6	0.05	223	
Provable	160	0.77			3.5	0.05	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	
Provable	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																
Provable	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/TMO Copper and Cobalt																
Proved	1.0	3.4						0.15	0.8	3.5						
Provable	3.8	2.9						0.11	1.7	3.2						
Total	**4.8**	**3.0**						**0.12**	**2.4**	**3.3**						
Primary Copper and Cobalt																
Proved	1.8	2.5						0.24								
Provable	18	2.4						0.11								
Total	**19**	**2.4**						**0.12**								
Stockpiles																
Proved																
Provable	16	1.6							9.3	2.1						
Total	**16**	**1.6**							**9.3**	**2.1**						
Kinsevere Total	**40**	**2.1**							**12**	**2.3**						
Dugald River (100%)																
Primary Zinc																
Proved	12		11.0	2.1	70				10.9		10.8	2.0	64			
Provable	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	120	1.4		
Provable	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**	**120**	**1.3**		
Rosebery Total	**6.1**	**0.19**	**6.3**	**2.5**	**120**	**1.2**			**7.2**	**0.18**	**6.9**	**2.6**	**120**	**1.3**		

7. S.I. units used for metals of value, Cu=copper, Zn=zinc, PB=lead, Ag=silver, Au=gold, Mo=molybdenum, Co=cobalt

MINERAL RESOURCES AND ORE RESERVES CONTINUED

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[8]	HonFAusIMM(CP)	MMG
MMG Mineral Resources and Ore Reserves Committee	Ore Reserves	Cornel Parshotam[8]	MAusIMM	MMG
MMG Mineral Resources and Ore Reserves Committee	Metallurgy: Mineral Resources / Ore Reserves	Amy Lamb[8]	MAusIMM(CP)	MMG
Las Bambas	Mineral Resources	Hugo Rios[8]	MAusIMM(CP)	MMG
Las Bambas	Ore Reserves	Yao Wu[8]	MAusIMM(CP)	MMG
Kinsevere	Mineral Resources	Samson Malenga[9]	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[10]	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.

8. Participants in the MMG Long-Term Incentive Plans which may include Mineral Resources and Ore Reserves growth as a performance condition
9. South African Council for Natural Scientific Professions, Professional Natural Scientist
10. Member of the Association of Professional Engineers and Geoscientists of British Columbia

MINERAL RESOURCES AND ORE RESERVES CONTINUED

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;
- economic factors account for 60% of the variance with the remainder due to improved orebody knowledge and geological modelling at Chalcobamba has resulted in 156kt metal reduction;
- 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 2021 (contained metal) have increased for copper (7%) and decreased for zinc (-8%), lead (-3%), silver (-3%), gold (-9%) and molybdenum (-8%). Cobalt has been reported publicly for the first time with 29kt of contained metal.

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

Increases:

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

- 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.
- the Kinsevere Ore Reserves (contained metal) have increased for copper by 200% due to the to the sulphide material being reported for the first time and the inclusion of the remaining insitu oxide and TMO material together with sulphide and TMO stockpiled ores. These new Ore Reserves are the direct result of the successful completion of a Feasibility Study and MMG Board approval of the Kinsevere Expansion Project.
- Cobalt Ore Reserves with 29kt of contained metal have been reported publicly for the first time due to the approval of the Kinsevere Expansion Project.

Decreases:

The decreases in Mineral Resources (contained metal) 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.

MINERAL RESOURCES AND ORE RESERVES CONTINUED

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: 2020 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	

MINERAL RESOURCES AND ORE RESERVES CONTINUED

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[11]	Cut-off value	Comments
Las Bambas	Oxide Copper	OP	1% Cu[12]	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[12] (average)	
	Primary Copper Chalcobamba		0.20% Cu[12] (average)	
	Primary Copper Sulfobamba		0.21% Cu[12] (average)	
Kinsevere	Oxide Copper & Stockpiles	OP	0.6% CuAS[13]	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[12]	
	Primary Copper	OP	0.7% Cu[12]	
	Oxide TMO Cobalt	OP	0.2% Co[14]	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[14]	
Sokoroshe II	Oxide	OP	0.73% Cu[12]	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[12]	
	Primary Copper	OP	0.8% Cu[12]	
	Oxide TMO Cobalt	OP	0.2% Co[14]	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[14]	
	Primary Cobalt	OP	0.2% Co[14]	
Nambulwa / DZ	Oxide Copper	OP	0.76% Cu[12]	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[14]	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[12]	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[14]	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, Ag, Au)	UG	A$174/t NSR[15]	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[15]	All areas of the mine are reported using the same NSR cut-off value.
	Primary Copper	UG	1% Cu[12]	All areas of the mine are reported at the same cut-off grade.
High Lake	Cu, Zn, Pb, Ag, Au	OP	2.0% CuEq[16]	CuEq[16] = 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[16]	CuEq[16] = 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[17]	ZnEq[17] = Zn + (Cu×3.31) + (Pb×1.09) + (Au×1.87) + (Ag×0.033); prices and metal recoveries as per High Lake.

11. OP = Open Pit, UG = Underground
12. Cu = Total copper
13. CuAS = Acid soluble copper
14. Co = Total cobalt
15. NSR = Net Smelter Return
16. CuEq = Copper equivalent
17. ZnEq = Zinc equivalent

MINERAL RESOURCES AND ORE RESERVES CONTINUED

Table 4: Ore Reserves cut-off grades

Site	Mineralisation	Mining Method	Cut-off value	Comments
Las Bambas	Primary Copper Ferrobamba	OP	0.20% Cu[18] (average)[19]	Range based on rock type recovery.
	Primary Copper Chalcobamba		0.23% Cu[18] (average)[20]	
	Primary Copper Sulfobamba		0.24% Cu[18] (average)[21]	
Kinsevere	Stockpiles	NA	0.9% Cu[18]	
	Oxide Copper	OP	1.1% Cu[18]	In-situ copper Ore Reserves constrained within a US$3.28/lb Cu and US$20.16/lb Co pit design.
	Transition Mixed Ore Copper (TMO)	OP	1.1% Cu[18]	
	Primary Copper	OP	1.0% Co[22]	
	Oxide TMO Cobalt	OP	0.2% Co[22]	In-situ cobalt Ore Reserves constrained within a US$3.28/lb Cu and US$20.16/lb Co pit design, but exclusive of copper mineralisation.
	Primary Cobalt	OP	0.1% Co[22]	
Rosebery	Zn, Cu, Pb, Ag, Au	UG	A$174/t NSR[23]	
Dugald River	Primary Zinc	UG	A$142/t NSR (average)[23]	

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	Co	Zn	Pb	Ag	Au	Mo	
Las Bambas	Copper Concentrate	86%		-	-	75%	71%		10%
	Molybdenum Concentrate							55.5%	5%
Rosebery	Zinc Concentrate			85%					8%
	Lead Concentrate			3.1%	77%	40%	15%		7%
	Copper Concentrate	59%				37%	36%		8%
	Doré[24] (gold and silver)					0.2%	23%		
Dugald River	Zinc Concentrate	-		88%		39%	-		10.5%
	Lead Concentrate	-			66%	47%	-		10.0%
Kinsevere	Copper Cathode	81% Cu (96% CuAS[25])							
	Cobalt Precipitate		66%						

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

18. Cu = Total copper
19. Range from 0.20 to 0.24% Cu
20. Range from 0.22 to 0.29% Cu
21. Range from 0.24 to 0.29% Cu
22. Co = Total cobalt
23. NSR = Net Smelter Return
24. 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
25. CuAS = Acid Soluble Copper