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Copper Mountain Mining Announces Improved Feasibility Study Update Results for Eva Copper, Improves NPV and Increases Total Production by 57%

Vancouver, B.C., May 7, 2020 – Copper Mountain Mining Corporation (TSX:CMMC | ASX:C6C) ("Copper Mountain" or the "Company") is pleased to announce positive results from its 2020 Feasibility Study Update ("2020 FS") on its 100% owned Eva Copper Project ("Eva" or "the Project"), which is located in Queensland, Australia. The 2020 FS demonstrates significantly improved economics and operating metrics, including a higher after-tax NPV, increased production, lower cash costs and a longer mine life, when compared to the prior 2018 Feasibility Study. *All dollars are in U.S. dollars unless otherwise indicated.*

2020 FS Highlights

Economic metrics highlights:

- After-tax Net Present Value (NPV)⁽¹⁾ at an 8% discount rate of \$437 million.
- After-tax Internal Rate of Return (IRR)⁽¹⁾ of 29%.
- Total initial development capital \$382 million.

Operating metrics highlights:

Key Metrics	Feasibility Study Update 2020	Feasibility Study 2018	% change		
Total copper production (Mlb)	1,502	959	57%		
Average annual copper production (MIb/a)	100	80	25%		
C1 cash costs per pound, after by-product credits ⁽¹⁾ (\$)	1.44	1.74	-17%		
Project life (years)	15	12	25%		

(1) Assumes bank consensus metal prices: Year -1 of \$2.97 per pound copper and \$1,466 per ounce gold, Year 1 of \$3.03 per pound copper and \$1.434 per ounce gold and Year 2 and long-term prices of \$3.04 per pound copper and \$1,362 per ounce gold.

"These results demonstrate the high quality nature of the Eva Copper Project," commented Gil Clausen, Copper Mountain's President and CEO. "The economics of the Project have been improved with higher production, a longer mine life and lower operating costs. The Blackard and Scanlan deposits were added to Mineral Reserves, increasing total Mineral Reserves by 46%, and we have made process flow sheet optimizations. Eva Copper has the potential to add significant production and cash flow to our existing solid operating base. While we are and will continue to add value to Eva Copper, it should be noted that we will only move forward with development in the right copper price environment. Eva provides Copper Mountain shareholders with high quality organic growth potential in a low risk jurisdiction."



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Mining

Conventional open pit mining methods, which include drilling, blasting, loading, and hauling, will be employed at the Eva Copper Project. There are seven pits that make up the Project's mine plan: Little Eva is the primary pit and will be supplemented by progressively mining six satellite pit areas at Blackard, Scanlan, Turkey Creek, Bedford, Lady Clayre, and Ivy Ann. The pit designs for the seven deposits were based on a Whittle Lerchs-Grossmann optimization at US\$2.75 per pound copper price, generated using Measured and Indicated Mineral Resources only. Mining costs are based on a first-principles model based on locally-sourced costs for major inputs.

The mine plan includes mining 551 million tonnes of ore and waste from seven deposits over a mine life of 15 years. Total ore mined is expected to be 170 million tonnes and total waste is expected to be 380 million tonnes, for a waste to ore strip ratio of 2.2 to 1. With an overall copper recovery of 87%, the Project's total copper production is expected to be approximately 1.5 billion pounds of copper, while gold production would be 205,000 ounces based on a gold recovery of 78%. Metal production on an average annual basis would be 100 million pounds of copper and 13,650 ounces of gold. However, the first two years of mining are expected to produce approximately 128 million pounds of copper per year.

Processing

The process plant is designed to mill 31,200 tonnes per day (tpd) for an average throughput of 11.4 million tonnes per year. Sequenced mining from the seven deposits will deliver a mixture of sulphide and native copper ore in a ratio of 75% to 25%. The sulphide deposits include Little Eva, Turkey Creek, Bedford, Lady Clayre, and Ivy Ann, whereas the Blackard and Scanlan deposits contain both native copper and sulphide ore. The processing flowsheet consists of a crushing, grinding, gravity separation and flotation to recover copper and gold in concentrate form. The flotation concentrate will be thickened, filtered and stockpiled for shipping to the Mt. Isa Smelter. Full transportation, smelting and refining costs were based on the Company's existing long-term contract with Glencore's Mt. Isa Smelter, which is situated 194 kilometres to the SW of Eva Project area.

A key update in the 2020 FS flowsheet from the 2018 Feasibility Study is the change from a SAG mill and pebble crushing circuit to a secondary crusher and High-Pressure Grinding Rolls (HPGR) design. The ball mill has also been upsized in order to support 31.2 kt/d at a P80 target grind of 165 μ m. The process plant flowsheet developed for the Eva Copper Project is a standard concentrator design and all the unit operations selected for the plant consist of proven technology and are considered low-risk.

The Project is near existing infrastructure with power available through a 220 kV powerline. Water for the operations will be supplied through a well field located near the processing facility, pit dewatering and water reclaimed from the tailings storage facility, all of which are located on the Company property. The well field has been drilled, pump tested and verified by independent hydrologists as sufficient for the Project's water consumption needs.

A summary of mining and production parameters is provided below. A summary of the Eva Copper Project's life of mine production schedule by year is available in appendix 1. A detailed life of mine production schedule by deposit and zone is available in the 2020 FS Technical Report.



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Total material mined (kt)	550,959
Total ore processed (kt)	170,386
Total waste (kt)	380,574
Waste to ore strip ratio	2.2:1
Processing Rate (tpd)	31,200
Total copper production (Mlbs)	1,502
Annual copper production (First two years) (Mlbs)	128
Annual copper production (LOM) (lbs)	100
Total gold production (koz)	205
Annual gold production (LOM) (koz)	14
Average copper recovery (%)	87%
Average gold recovery (%)	78%
Average copper feed grade (%)	0.46%
Average gold feed grade (g/t)	0.05
Mine life (years)	15

Capital and Operating Costs

Total initial development capital for the Eva Copper Project is estimated to be approximately \$382 million, which includes a contingency of \$42 million and pre-production revenue of \$11 million. Capital is estimated using an Australian dollar to U.S. dollar exchange rate 1.55 to 1.

Total Initial Development Capital (Years -2 to 1)	\$ Millions
Direct Costs	
Mining	35
Process Plant	151
Infrastructure	68
Ancillaries	26
Total Direct Costs	279
Indirect Costs	
Indirect Costs	57
Owner's Costs	15
Total Indirect Costs	72
Subtotal	352
Contingency	42
Pre-production Revenue	(11)
Total Project	382

Total life of mine development capital is estimated to be \$492 million which includes total sustaining capital of approximately \$34 million and total rehabilitation costs of \$14 million.



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Average C1 cash cost, net of by-product credits, is approximately \$1.44 per pound of copper. Total operating costs are estimated to be \$11.39 per tonne milled. Total mining costs are estimated to be \$1.66 per tonne mined or \$5.26 per tonne milled. Total operating costs do not include royalties, which are estimated to be approximately \$1.18 per tonne milled.

Unit operating cost	\$ per tonne milled
Mining	5.26
Processing	5.14
G&A	0.56
Accommodation & Travel	0.43
Total	11.39

Economic Analysis

The after-tax NPV using an 8% discount rate is \$437 million and the after-tax IRR is 29%. The economics are calculated using average bank consensus metal prices, which are as follows: for copper, \$2.97 per pound in Year - 1, \$3.03 per pound in Year 1, and \$3.04 per pound in Year 2 and long-term. For gold, \$1,466 per ounce in Year -1, \$1,434 in Year 1 and \$1,362 per ounce Year 2 and long-term. The Australian Dollar to United States Dollar exchange rate used was 1.55. A sensitivity analysis on varying copper prices and other variables was completed on the after-tax NPV (8%) and the results are summarized below.

Copper Price					
Factor	NPV (8%) \$M				
0.90	286				
1.00 (base case)	437				
1.10	587				

Exchange Rate					
Factor NPV (8%) \$M					
0.90	396				
1.00 (base case)	437				
1.10	470				

Capital Cost					
Factor	NPV (8%) \$M				
0.90	466				
1.00 (base case)	437				
1.10	408				

Operating Cost								
Factor	NPV (8%) \$M							



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0.90	506
1.00 (base case)	437
1.10	367

Mineral Resources and Mineral Reserves

The Eva Copper Mineral Reserve increased 46% to 171 million tonnes grading 0.46% copper and 0.05 g/t gold for a total of 1.7 billion pounds of copper and 260,000 ounces of gold, when compared to the previous September 2018 Mineral Reserve. The Mineral Reserve is included in the Mineral Resource and the effective date of the Mineral Reserve and Mineral Resource is January 30, 2020. A summary of the Mineral Reserve and Mineral Resource is provided below. A complete detailed Mineral Reserve and Mineral Resource table by deposit is available in the 2020 FS Technical Report.

Eva Copper Mineral Reserve											
TonnesCu GradeAu GradeCu PoundsAu(kt)(% Cu)(g/t)(Mlb)											
Proven	92,623	0.48	0.05	975	144						
Probable	78,425	0.43	0.04	743	115						
Total Proven and Probable	171,047	0.46	0.05	1,718	260						
Total Proven and Probable (Gold only)	106,380		0.08		260						

Mineral Reserve Notes:

1. CIM Definition Standards were followed for Mineral Reserves.

2. Mineral Reserves were generated using the December 31, 2019 mining surface.

3. Mineral Reserves are reported at an NSR cut-off value of \$8.95/t for Little Eva and Turkey Creek, \$9.35/t for Bedford and Blackard, \$10.32/t for Lady Clayre and Scanlan, and \$11.44/t for Ivy Ann.

4. Mineral Reserves are reported using copper and gold prices of \$2.75/lb and \$1,250/oz, respectively.

5. Average process recoveries of 95% for copper sulphide, 63% for native copper, and 78% for gold were used for all deposit a reas.

6. Little Eva, Turkey Creek, Bedford, and Lady Clayre have an equivalent 5.3% NSR royalty; Ivy Ann has an equivalent 5.8% royalty.

7. Blackard, Scanlan, and Turkey Creek do not contain gold.

8. Totals may show apparent differences due to rounding.

Eva Copper Mineral Resource											
TonnesCu GradeAu GradeCu PoundsAu Grade(kt)(% Cu)(g/t)(Mlb)(l											
Measured	111,821	0.45	0.05	1,098	160						
Indicated	148,818	0.40	0.04	1,307	172						
Total Measured + Indicated	260,659	0.42	0.04	2,419	330						
Total Inferred	46,267	0.42	0.04	415	51						

Mineral Resource Notes:

1. Joint Ore Reserves Code (JORC) and CIM definitions were followed for Mineral Resources.

2. Mineral Resources are inclusive of Mineral Reserves.

3. Mineral Resources are constrained within a Whittle pit shell generated with a copper price of \$3.50/lb, a gold price of \$1,250/oz and an exchange rate of AU\$1.35 = U\$\$1.00.



4. Density measurements were applied (ranges from 2.4 t/m³ to 3.0 t/m³).

5. Significant figures have been reduced to reflect uncertainty of estimations and therefore numbers may not add due to rounding.

Technical Report

The 43-101 compliant technical report for the Eva Copper 2020 FS ("Technical Report") is available on SEDAR at www.SEDAR.com and on the Company's website at <u>www.CuMtn.com</u>. Ausenco Limited (Ausenco) designed the 2020 process plant and associated site infrastructure for the Eva Copper Project and provided technical input into the preparation of this Technical Report. Klohn Crippen Berger (KCB) designed the 2020 Tailings Storage Facility and provided input to water management. Merit Consultants International (Merit), a division of Cementation Canada Inc., developed the 2020 capital cost, construction management, and execution plan of the Project.

Qualified Persons

The Mineral Resource estimate for the Eva Copper Project was prepared by Copper Mountain Mining Corporation in accordance with standards as defined by the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") "CIM Definition Standards-For Mineral Resources and Mineral Reserves", adopted by CIM Council on May 10, 2014.

Messrs. Paul Staples, Alistair Kent, David Johns, Peter Holbek, Stuart Collins, Mike Westendorf, Roland Bartsch and Richard Klue serve as Qualified Persons as defined by National Instrument 43-101 for the Technical Report related to the Eva Copper Project. Mr. Stuart Collins of SEC Enterprises Corp., who is independent of the Company, is the Qualified Person for Mining and the Mineral Reserve. Mr. Peter Holbek, Vice President, Exploration at Copper Mountain Mining Corporation, is the Qualified Person for the related Mineral Resource. Mr. Alistair Kent, Senior Project Manager for Merit Consultants International, who is independent of the Company, is the Qualified Person for the Development Capital Estimate. Mr. Paul Staples, Vice President and Global Practice Lead for Ausenco Limited, who is independent of the Company, is the Qualified Person for Ore Processing. Mr. Richard Klue, Mr. Alistair Kent, Mr. Paul Staples, Mr. Johns, Mr. Peter Holbek, Mr. Mike Westendorf, Mr. Roland Bartsch and Mr. Stuart Collins have reviewed and verified that the technical information related to the Eva Copper Project in this news release is accurate.

Competent Persons Statement

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Peter Holbek, B.SC (Hons), M.Sc. P. Geo. Mr. Holbek is a senior officer and a full time employee of the Company and has sufficient experience which is relevant to the style of mineralization and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Holbek does consent to the inclusion in this news release of the matters based on their information in the form and context in which it appears.

About Copper Mountain Mining Corporation:

Copper Mountain's flagship asset is the 75% owned Copper Mountain mine located in southern British Columbia near the town of Princeton. The Copper Mountain mine currently produces on average approximately 90 million



pounds of copper equivalent annually. Copper Mountain also has the development-stage Eva Copper Project in Queensland, Australia and an extensive 4,000 km² highly prospective land package in the Mount Isa area. Copper Mountain trades on the Toronto Stock Exchange under the symbol "CMMC" and Australian Stock Exchange under the symbol "C6C".

Additional information is available on the Company's web page at www.CuMtn.com.

On behalf of the Board of

COPPER MOUNTAIN MINING CORPORATION

"Gil Clausen"

Gil Clausen, P.Eng. Chief Executive Officer

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Cautionary Note Regarding Forward-Looking Statements

This news release may contain forward-looking statements and forward-looking information (together, "forward-looking statements") within the meaning of applicable securities laws. All statements, other than statements of historical facts, are forward-looking statements. Generally, forward-looking statements can be identified by the use of terminology such as "plans", "expects", "estimates", "intends", "anticipates", "believes" or variations of such words, or statements that certain actions, events or results "may", "could", "would", "might", "occur" or "be achieved". Forward-looking statements involve risks, uncertainties and other factors that could cause actual results, performance and opportunities to differ materially from those implied by such forward-looking statements. Factors that could cause actual results to differ materially from these forward-looking statements include the successful exploration of the Company's properties in Canada and Australia, the reliability of the historical data referenced in this press release and risks set out in Copper Mountain's public documents, including in each management discussion and analysis, filed on SEDAR at www.sedar.com. Although Copper Mountain believes that the information and assumptions used in preparing the forward-looking statements are reasonable, undue reliance should not be placed on these statements, which only apply as of the date of this news release, and no assurance can be given that such events will occur in the disclosed time frames or at all. Except where required by applicable law, Copper Mountain disclaims any intention or obligation to update or revise any forward-looking statement, whether as a result of new information, future events or otherwise.



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APPENDIX 1: Eva Copper Production Plan

Category	Units	Total	-1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Sulfide Tonnes	t 000	132,091	1,168	18,908	6.898	9.643	13,285	10.700	9.155	5.701	14,172	6,301	6.186	6.020	7,597	10,628	2,058	3,669
Sulfide Cu Grade	% Cu	0.41	0.51	0.53	0,090	9,043 0.41	0.41	0.42	0.41	0.35	0.33	0,301	0,180	0.39	0.36	0.38	0.40	0.50
Sulfide Cu Tonnes	% Cu T																	
Suilide Cu Tonnes	Ĩ	543,767	5,920	100,981	29,902	39,343	54,488	45,320	37,177	20,062	46,989	24,454	22,165	23,272	26,983	40,232	8,199	18,278
Native Tonnes	t 000	35,560	0	0	1	3,620	3,302	3,011	2,986	798	2,989	2,922	2,790	2,921	2,961	2,975	2,460	1,824
Native Cu Grade	% Cu	0.62	0.00	0.00	0.31	0.57	0.61	0.63	0.66	0.52	0.53	0.56	0.61	0.66	0.68	0.63	0.67	0.74
Native Cu Tonnes	т	220,863	0	0	3	20,610	20,302	18,970	19,706	4,174	15,885	16,354	16,892	19,156	20,231	18,711	16,364	13,508
Transition Tonnes	t 000	2,734	0	0	0	12	45	256	542	36	136	78	61	124	279	491	674	0
Transition Cu Grade	% Cu	0.55	0.00	0.00	0.00	0.47	0.65	0.55	0.51	0.47	0.60	0.86	0.41	0.49	0.55	0.56	0.55	0.00
Transition Cu Tonnes	т	15,022	0	0	0	58	291	1,408	2,752	168	812	676	251	611	1,548	2,729	3,718	0
Total Ore Tonnes	t 000	170,386	1,168	18,908	6,899	13,275	16,632	13,966	12,683	6,535	17,296	9,301	9,038	9,066	10,838	14,095	5,192	5,494
Total Ore Cu Grade	% Cu	0.46	0.51	0.53	0.43	0.45	0.45	0.47	0.47	0.37	0.37	0.45	0.43	0.47	0	0	1	1
Total Ore Cu Tonnes	т	779,653	5,920	100,981	29,904	60,010	75,081	65,699	59,636	24,404	63,686	41,484	39,308	43,038	48,762	61,672	28,281	31,786
Waste Tonnes	t 000	380,574	13,520	16,132	45,113	35,669	24,541	27,339	36,100	46,185	29,424	20,233	26,265	17,148	15,077	13,245	9,408	5,174
Total Tonnes	t 000	550,959	14,688	35,040	52,012	48,943	41,174	41,228	46,671	52,720	46,720	29,534	35,303	26,214	25,915	27,340	14,600	10,668
Total Cu Production	klbs	1,501,930	16,685	133,481	122,457	92,767	106,484	107,600	104,086	99,078	91,197	95,298	88,253	93,058	94,300	100,930	79,885	76,372
Sulfide Au Grade	g/t	0.05	0.07	0.08	0.02	0.02	0.06	0.06	0.03	0.08	0.07	0.03	0.04	0.05	0.04	0.04	-	-
Sulfide Au Ounces	oz 000	260	3	49	5	9	34	26	12	16	41	9	10	13	13	18	-	-



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PRIOR MINERAL RESOURCE AND ORE RESERVE DISCLOSURE

ASX Release Date	Title of ASX Release	Outline of Relevance
26 July 2011	Roseby Resource passes one million tonnes of contained copper	Initial resource estimate for Little Eva deposit with 2004 JORC Table 1.
19 December 2011	Little Eva turns one hundred	Resource estimate update for Little Eva deposit with reference 26 July 2011 ASX release.
23 April 2012	Further resource upgrades at Roseby Project	Resource estimates for Bedford, Ivy Ann and Lady Clayre deposits with relevant 2004 JORC Table 1.
14 May 2012	Little Eva: A new large scale copper development	Definitive Feasibility Study. Includes a JORC 2004 Reserve estimate for the project and an updated resource estimate for Little Eva.
3 July 2012	15% Resource Upgrade at Roseby Project	Resource estimates for the Blackard and Scanlan deposits with relevant 2004 JORC Table 1.
22 August 2012	Further Resource Upgrade at Roseby Project	Resource estimate for the Legend deposit with 2004 JORC Table 1.
13 March 2014	Cost Review Delivers Major Upgrade to Little Eva	Update of 14 May 2012 release to ASX.
27 May 2014	JORC 2012 Resource Estimate for the Little Eva Deposit	Resource estimate for the Little Eva deposit with 2012 JORC Table 1.
18 March 2015	Maiden Resource Estimate for Turkey Creek	Resource estimate for the Turkey Creek deposit with 2012 JORC Table 1.
21 June 2016	Turkey Creek - First Reserve estimates	Reserve estimate for Turkey Creek with JORC 2012 Table 1.
9 March 2017	Cloncurry Project: Bedford Resource Upgrade	Resource estimate for the Bedford deposit with 2012 JORC Table 1.



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2 August 2017	Updated DFS delivers Bigger and Better Cloncurry Copper Gold Project	Update of prior studies.
5 October 2018	Positive Feasibility for Eva Copper Project	Reserve estimate for the Eva Copper Project.
15 October 2019	Addition to Eva Copper Mineral Resource	Revised resource estimate for Blackard deposit.

The company confirms that it is not aware of any new information or data that materially affects the information included in the previous market announcements. The company confirms that all material assumptions and technical parameters underpinning the Mineral Resource and Ore Reserve estimates in the previous market announcements 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.

TABLE 1 OF THE 2012 EDITION OF THE JORC CODE FOR EVA COPPER PROJECT MINERALRESOURCES AND ORE RESERVES

The table below is a description of the assessment and reporting criteria used in reporting the Exploration Results that reflects those presented in Table 1 of The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves.

Criteria	Commentary
Sampling techniques	Little Eva, Blackard, Turkey Ck, Bedford, Lady Clayre and Ivy Ann Deposits
	Not applicable. Previously disclosed in other ASX announcements.
	Scanlan Deposit
	 Resource estimates was based on reverse circulation (RC) and diamond (DD) drilling.
	 Drilling was completed by CRAE 1978 to 1996, Bolnisi 2002 to 2003, Universal 2002 to 2010 and Xstrata 2007 to 2008.
	• Samples were routinely collected on consecutive 1m and 2m intervals representative of the intersected geology. A small proportion of samples were collected on 3m intervals.
	• Approximately 2-4kg sample weights were obtained from each interval. Each sample was dried, crushed and pulverised to produce a representative charge for geochemical analysis.



Criteria	Commentary
GIREIIa	 Universal, Xstrata and Bolnisi RC samples were collected directly using a cyclone and cone or triple deck riffle splitter. A small number of wet intervals were sub-sampled with a scoop or spear. Universal, Xstrata and Bolnisi DD core sampling was guided by geology, with quarter or half core submitted for analysis. CRAE sampling procedures are not available. Where necessary, sub-standard data was excluded from the estimation process due to low sample quality (e.g. costean, auger), assay quality (e.g. partial or incomplete) or sample representivity (e.g. drillholes oriented sub-parallel to mineralisation dip).
Drilling techniques	Little Eva, Blackard, Turkey Ck, Bedford, Lady Clayre and Ivy Ann Deposits
	 Not applicable. Previously disclosed in other ASX announcements. Scanlan Deposit
	 RC holes were drilled using 130mm 4.5", 5.0", 5.375", 5.5", 5.75" or 6" face sampling hammers.
	 HQ, NQ and NQ2 core sizes were predominantly used in diamond drilling.
	 Most oriented diamond core has been marked using inner tube inlaid systems such as 'Ezy-Mark'.
	 RAB, AC, PERC and RDH drilling specifications are not available. Scanlan
	 The resource estimation dataset incorporates 151 RC and 19 DD drillholes for a total of 18,869m.
	 Drilling was completed by Universal 37%, Xstrata 1% Bolnisi 2% and CRAE 60% (metres).
Drill sample recovery	Little Eva, Blackard, Turkey Ck, Bedford, Lady Clayre and Ivy Ann Deposits
	 Not applicable. Previously disclosed in other ASX announcements. Scanlan Deposit
	 In most drillholes DD core recovery was measured or RC sample recovery visually estimated.
	• Recoveries are considered to be fair to excellent averaging. Lower recoveries were occasionally observed in the hole collars (top few metres).



Criteria	Commentary
	 Samples were recorded as dry, moist or wet
	 Individual RC samples were collected into the cyclone prior to cone splitting.
	Cyclone and splitters were routinely cleaned to limit contamination.
	 RC sample bias due to preferential loss/gain of fine/coarse material is considered within acceptable limits across all deposits.
	 Best practice methods were used for diamond coring to ensure the return of high quality core samples.
	 Data on core and RC sample recovery from CRAE and Bolnisi, is largely unavailable.
Logging	Little Eva, Blackard, Turkey Ck, Bedford, Lady Clayre and Ivy Ann Deposits
	 Not applicable. Previously disclosed in other ASX announcements.
	Scanlan Deposit
	 Drillholes were logged by geologists at the rig (RC) or at local central exploration hubs (DD) using company standard logging procedures.
	 Logging was qualitative and quantitative including a combination of colour, lithology, mineralisation, alteration, sulphide and oxide mineralogy, sulphide and oxide amount, texture, grain size and structure.
	 Universal & Xstrata utilised digitial logging systems. Earlier drilling was logged onto paper and transferred to a digital form for loading into the database.
	 Geotechnical logging was completed for select diamond core at Scanlan.
	 Representative drill core and RC chips have been retained.
	 Geological logging was routinely carried out on resource drill holes.
Sub- sampling	Little Eva, Blackard, Turkey Ck, Bedford, Lady Clayre and Ivy Ann Deposits
techniques	 Not applicable. Previously disclosed in other ASX announcements.
and sample	Scanlan Deposit
preparation	 RC chip samples were typically split at an 87.5% : 12.5% ratio using cyclone and cone or riffle splitter to obtain a ~2-4kg sub-sample for analysis. Occasional wet intervals were sub-sampled using a scoop or spear.



Criteria	Commentary
Citteria	 DD core intervals were halved or quartered to produce sub-samples
	for analysis.
	CRAE and Bolnisi sampling procedures are not available.
	• Samples were sent to extenal laboratories for sample preparation and analysis. All were large independent certified commercial laboratories that use industry standard preparation including drying, crushing and pulverisation.
	• Typical sub-sample sizes >2kg are considered representative for typical copper mineralisation in the Project area.
	• For RC chips, field duplicate preparation involved riffle splitting of calico bag or bulk RC samples. For DD core, field duplicate preparation involved splitting of core sub-samples.
	Duplicate data displays acceptable accuracy and precision.
	 Duplicates were typically collected at a ~1 : 20 ratio. Bolnisi and Universal collected duplicates at a ~1 : 40 ratio from 2002 to 2006. Duplicate data is unavailable for CRAE and Bolnisi drilling.
Quality of assay data	Little Eva, Blackard, Turkey Ck, Bedford, Lady Clayre and Ivy Ann Deposits
and laboratory	 Not applicable. Previously disclosed in other ASX announcements. Scanlan Deposit
tests	• Different commercial laboratories, analytical methods and QAQC procedures were employed by different operators of the various drilling campaigns over the last 40 years.
	• Universal and Xstrata utilised ALS and SGS for routine drill sample analyses, with other laboratories used as required (Ammtec and Ultratrace).
	 Samples were dried, crushed and pulverised at the respective laboratories; base metals were assayed via standard multi-element methods (acid digests with either AAS or ICP-AES/OES finishes with samples reporting at more than 1% copper re-assayed using ore grade methods optimised for precision and accuracy at high concentrations); and, gold via Fire Assay (either AAS or ICP-OES finishes or Aqua Regia Digest with AAS or ICP-MS finishes). Data reported from Aqua Regia and Mixed Acid digestion should be considered as representing only the leachable portion of a particular analyte. Four Acid digestion is considered near total.



Criteria	Commentary
	 Universal and Xstrata implemented and maintained a programme of quality control involving field duplicates, blanks and certified reference materials (CRMs) for copper and gold, to monitor laboratory accuracy and precision for each sample batch. The CRM expected analyte grades were unknown to the laboratory at the time of testing. Duplicates and CRMs for copper and gold were typically inserted into the sampling sequence at a ~1:20 ratio, with Blanks inserted at a ~1:40 ratio.
	• Bolnisi utilised duplicates and copper CRMs inserted at a ~1:40 ratio.
	 Reviews of QAQC datasets were reported routinely by the Company's database administrator.
	• For each resource estimate the relevent QAQC data was reviewed internally by Company and/or externally by independent consultants. In each case the performance of the standards and blanks was appropriate, with only minor issues affecting very small percentages of the data.
	• No geophysical tools were used to determine the results reported here.
	• The resource estimation dataset comprises 9,645 drill sample analyses.
	 Sample batches contained a total of 154 blank, 228 CRM and 292 duplicate samples.
Verification of sampling	Little Eva, Blackard, Turkey Ck, Bedford, Lady Clayre and Ivy Ann Deposits
and assaying	• Not applicable. Previously disclosed in other ASX announcements. Scanlan Deposit
	 Significant intersections were not selectively sampled.
	 Assay validation checks have been completed at multiple stages through resource development.
	• Field sample logs were collected using paper ledgers or laptops. Sample logs were uploaded into the company Datashed database and validated by company database personnel.
	 Assay files were mainly received in digital format from Laboratories. Historic paper delivered assay results have been retained in hard copy format and/or converted to scanned digital versions. Subpopulations of historic database records have been



Criteria	Commentary
	 verified against original paper records. Data was uploaded into the Altona Datashed database and validated by company database personnel. No manual data inserts took place. No adjustments have been applied to the results.
	 DD holes have been twinned with RC holes during resource drilling at select deposits (Little Eva, Blackard, Scanlan and Legend). In general comparison of results between twin holes is acceptable, although some variation exists in the tenor and location of mineralisation. Poor duplication of assay results between twinned holes is observed at Scanlan. In most cases this can reasonably be attributed to differences in downhole deviation, survey issues and/or small scale variability consistent with the observed and modelled geological variability. In isolated cases diamond drilling suggests thin, high grade material may be reflected as broader, moderate tenor mineralised zones in RC twin holes.
Location of	General
data points	• The majority of collar locations have been surveyed by licensed surveyors or Company personel using a Differential Global Positioning System (DGPS) with approximately 0.1m or better horizontal accuracy. Elevation accuracy is considered to be less than 0.5m.
	 Downhole surveys have been completed using a variety of methods including down-hole cameras and gyroscopic surveying (gyro) systems, with a minority of holes having collar orientations only. Drillhole data and resource models utilise the GDA94 MGA Zone 54 Grid.
	Little Eva, Blackard, Turkey Ck, Bedford, Lady Clayre and Ivy Ann Deposits
	 Not applicable. Previously disclosed in other ASX announcements. Scanlan Deposit
	 The DTM was constructed from 1m contour data derived from high resolution airborne radar altimetry (50m line spacing).
	• 93% of drillhole collars were surveyed by licenced surveyors using DGPS or by traditional surveying methods with ≤0.05m horizontal accuracy, and the remainder had no survey method recorded.
	6% of holes have no downhole survey, with only a compass survey at the drillhole collar, the majority of the holes have been vertically



Criteria	Commentary
	drilled. 56% have no downhole survey, with only an unknown collar survey method. 38% have magnetic downhole camera surveys, mostly at 10m intervals.
Data spacing	General
and distribution	 Drill spacing at each deposit is deemed sufficient to establish geological and grade continuity appropriate for the given estimation methodology and resource classification applied. Little Eva, Blackard, Turkey Ck, Bedford, Lady Clayre and Ivy Ann Deposits
	 Not applicable. Previously disclosed in other ASX announcements. Scanlan Deposit
	 Drilling has typically been completed at 40m intervals along 50m to 200m spaced sections approximately 080° (MGA Grid).
	 15% of the drilling is oriented east along section at -55° to -70° dip, 73% is subvertical, 11% is oriented west along section at -65° to -70° dip and 1% is oriented in other directions.
	• The majority of samples were collected at 2m downhole intervals (~67%).
Orientation of data in	Little Eva, Blackard, Turkey Ck, Bedford, Lady Clayre and Ivy Ann Deposits
relation to geological	Not applicable. Previously disclosed in other ASX announcements. Scanlan Deposit
structure	 No bias is considered to be caused by drilling direction. Nominal east-west drill sections are normal to the strike of mineralisation.
	• The dip of the mineralisation varies from subvertical to subhorizontal. Local grade continuity follows the dip of the mineralisation. The bulk of the drilling intersects local grade continuity at 45° to 90° angles and true widths are estimated to vary from 70-100% of downhole intercepts.
Sample	General
security	• Samples were collected into numbered calico bags at the drill site during the drilling operation. Unique sample numbers were retained during the whole process. Current procedures use pre-numbered



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Criteria	Commentary
	 bags. Samples were transported to the Company depot at the end of each working day and secured. All samples were then catalogued and sealed prior to dispatch. Samples were delivered to laboratories as they were collected using reputable commercial freight companies.
Audits or reviews	 General QA/QC samples were routinely monitored by the database manager and geologist on a batch and campaign basis. The accuracy of key elements such Cu and Au was acceptable and the field duplicate assay data was unbiased and shows an acceptable level of precision. A comprehensive audit of sampling, assaying and QAQC procedures used by Universal was carried out by independent consultants McDonald Speijers in 2006 with no significant adverse findings. QAQC procedures were assessed as part of a broader review of Altona's assets carried out by independent consultants Optiro in 2009. With the exception of the early work by CRAE and Bolnisi which is poorly documented, procedures employed at the deposits were found to meet acceptable industry standards.

Section 2: Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	• The Project is 100% owned by CMMC (in a wholy owned subsidiary Eva Copper Mining Pty Ltd). The planned pits and Mineral Resources sit within five granted Mining Leases (ML90162, ML90163, ML90164, ML90165 & ML90166), except for the Ivy Ann pit, which sits within Exploration Permit for Minerals (EPM) 25760 (King). The Mining Leases total 143 km ² in area, and are situated across two pastoral lease holdings and within one Native Title grant. There are two freehold lots granted in the late 1800s, and 100% owned by the Company, that lie within the MLs; the first sits over part of the Little Eva deposit, the second over part of the Longamundi deposit.
Exploration done by other parties	• The area has been subject to extensive exploration by preceding companies who were responsible for discovery and majority of historic drilling. Companies with significant contirbutions to



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Criteria	Commentary	
	exploration within the area include CRA-Exploration, Bolnisi Ltd, Universal Resource and Altona Mining Ltd.	
Geology	Not applicable. All material exploration results have previously been disclosed in other ASX announcements.	
Drill hole Information	 Not applicable. All material exploration results have previously been disclosed in prior ASX announcements. 	
Data aggregation methods	 Not applicable. All material exploration results have previously been disclosed in prior ASX announcements. 	
Relationship between mineralization widths and intercept lengths	 Not applicable. All material exploration results have previously been disclosed in prior ASX announcements. 	
Diagrams	 Figures throughout this release provide sufficent information for deposit geometries. 	
Balanced reporting	Not applicable. All material exploration results have previously been disclosed in prior ASX announcements.	
Other substantive exploration data	 Not applicable. All material exploration results have previously been disclosed in prior ASX announcements. 	
Further work	Additional drilling, geophysics and surface geochemistry may be completed at all deposits to better constrain Mineral Resources.	

Section 3: Estimation and Reporting of Mineral Resources

Criteria	Commentary
Database integrity	Little Eva, Blackard, Turkey Ck, Bedford, Lady Clayre and Ivy Ann Deposits
	Not applicable. Previously disclosed in other ASX announcements.
	Scanlan Deposit
	• Data used for estimation is stored within a SQL Server database and is managed using DataShed software. The structure of the drilling and sampling data is based on the Maxwell Data Model.
	 Drillhole data was primarily captured directly into digital logging systems and uploaded to the database by the database administrator



Criteria	Commentary		
	(standard procedures since 2005).		
	• Laboratory data has primarily been received in digital format and uploaded directly to the database (standard procedures since 2002).		
	• In both cases the data was validated on entry to the database, by a variety of means, including the enforcement of coding standards, constraints and triggers. These are features built into the data model that ensure that the data meets essential standards of validity and consistency.		
	• Original data sheets and files have been retained and are used to validate the contents of the database.		
	 Further validation of existing collar, survey and downhole data was completed for each resource estimation dataset. Validation steps included: Drillhole collar locations compared to the topographic surface, downhole deviations of all drillhole traces examined and problematic surveys excluded, assay data checked for overlapping and missing samples, checks for downhole information beyond end of hole depth, all data (e.g. assay, bulk density, RQDs, core recovery) checked for incorrect values by deriving minimum and maximum, lithology data checked to ensure use of standard rock type codes only, meta-data fields checked to ensure they were populated and that the data recorded was consistent. 		
Site visits	General		
	 The Competent Persons have made visits to site. 		
Geological	General		
interpretation	• The Eva Copper Project is situated within the Mary Kathleen Domain and to a lesser extent the Canobie Domain of the late Palaeoproterozoic Eastern Fold Belt of the Mount Isa Inlier.		
	• Copper deposits within the Project are variants of Iron-Oxide-Copper- Gold (IOCG) style hydrothermal mineralisation.		
	 Deposits fit into two categories, 'copper-gold' and 'copper-only'. The copper-gold deposits (e.g. Little Eva, Bedford, Lady Clayre and Ivy Ann) are typical of IOCG deposits in the Eastern Mt Isa Inlier. The copper-only deposits (e.g. Turkey Creek, Blackard, Scanlan, Longamundi, Great Southern, Caroline and Charlie Brown) are a distinct stratabound mineralisation style unique to the Roseby Schist host rocks. Little Eva, Blackard, Turkey Ck, Bedford, Lady Clayre and Ivy Ann 		



Criteria	Commentary
	Deposits
	Not applicable. Previously disclosed in other ASX announcements.
	Scanlan Deposit
	• The geological interpretation and resulting domaining utilised in the Scanlan resource estimate is primarily grade based. Underlying geological controls on mineralisation are poorly constrained, however grade continuity is generally high relative to drill density, meaning confidence in the current interpretation is moderate.
	 Lithology, alteration, weathering, ore texture and mineralogy are comparable to the detailed description provided for Blackard deposit. Only features specific to the Scanlan deposit are listed here.
	• Geological interpretation was completed on a sectional basis, from which polylines were interpolated to create 3D solid wireframes for lithology and mineralisation and surfaces for weathering interfaces.
	• The deposit extends over 1.65km in length. Mineralisation is locally exposed in sub-crop, and is confirmed through drilling in the main zone down dip to ~200m vertical depth below surface.
	• Mineralisation has a folded tabular geometry that is interpreted to be parallel or sub-parallel to bedding in an upright gently north plunging synform-antiform pair. Mineralisation strike is broadly north-south, whilst dip varies greatly due to the folding. The western synform is tight to isoclinal, whilst the antiform to the east is broad, creating flat- lying geometries in the centre of the deposit and a shallow easterly dip along the eastern margin. True widths vary between approximately 10m and 70m.
	• Weathering zones were interpreted to have the following thicknesses: 5m to 20m oxide zone, 30m to 130m native copper zone and <1m to 10m transition zone.
	• Mineralization is stratabound and deformed, however the limits to mineralization are generally sharp and easily defined. Grade continuity is high along the strata but less so across the strata.
	• Mineralisation domains were defined using grade constraints. A nominal cut-off grade of 0.15% Cu was used to define boundaries between mineralised and weakly-mineralised or unmineralised rock.
	 Scanlan mineralisation was interpreted to form a semi-continuus mineralised horizon, divided into generally three domains based on orientation dip direction and structural location: Western Trough –



Criteria	Commentary
Criteria	western limb dipping towards the east, Western Trough – eastern limb dipping steeply towards the west, Central and Eastern Flats - flat to shallowly dipping to the east.
	• Statistical and geostatistical analysis verified the domain definition by confirming statistical homogeneity and the presence of distinct continuity characteristics.
	 The mineralized zone is both continuous and cohesive. The 3-D shell constructed to constrain the interpolation is based on the shape of the mineralization and is unlikely to be affected by changes in geological interpretation.
	• The three structuraldomains were further subdivided (11 domains in total) based on the weathering profile, in order to separate mineralogically distinct mineralisation types.
	 Current Scanlan domaining is based on one of a series of possible geological interpretations. Adopting an alternative interpretation may have an impact on the Mineral Resource.
	• The deposit has been modified by supergene processes which are interpreted to be vertically oriented, however, the supergene processes have modified the copper mineralogy (and consequently metallurgical performance) but appear to have minimal impact on grade distribution.
Dimensions	Little Eva, Blackard, Turkey Ck, Bedford, Lady Clayre and Ivy Ann Deposits
	 Not applicable. Previously disclosed in other ASX announcements. Scanlan Deposit
	 The deposit is 1.65km in length and between 90m (in north) to 550m (in centre) wide with mineralisation intersected from surface to the current limit of drilling at ~200m vertical depth.
	 Mineralisation dip varies greatly due to folding. The western synform is tight to isoclinal, whilst the antiform to the east is broad, creating flat-lying geometries in the centre of the deposit and a shallow easterly dip along the eastern margin
	 The deposit remains open to the north, south and at depth.
Estimation and modelling	Little Eva, Blackard, Turkey Ck, Bedford, Lady Clayre and Ivy Ann Deposits
techniques	Not applicable. Previously disclosed in other ASX announcements.



Criteria	Commentary		
	Scanlan Deposit		
	The geological model and Mineral Resource estimate was completed in-house by CMMC		
	• inverse distance squared(ID2) method was used to interpolate 2.5 down-hole composited assay data into blocks using GEMCOM software. The deposit was divided into multiple (11) domains based on mineralogical data types (oxide zone, native copper zone, transition zone and sulphide zone) and orientation of mineralization. Boundaries between domains were treated as 'soft' during interpolation. Interpolation was conducted in three passes with a progressive increase in the search size and decrease in the required number of informing composites with each pass. The three passes were used to define Measured, Indicated and Inferred classifications, respectively. The maximum dimensions of the search ellipse for the inferred pass were less than the variogram ranges. The searches for Measured and Indicated classifications were generally fractions of the largest search (nominally 2/3 and 1/3 of the variogram range). Minor modifications to the size of the search ellipse were made to ensure a balance of data from between drill sections relative to along the sections. A minimum and maximum number of informing composites and drill holes. The interpolation was constrained by a three-dimensional shell conforming to the deposit shape that was teradted as a hard boundary. The data set did not contain extreme values, particularly once compositedGrades estimation was into a block model using 5 metre cubic blocks. Percent-models are used where blocks straddle domain boundaries to derive correct volumes and grades. All drill data were available for interpolation, Only blocks that were inside the geological (or grade) shell were used to sum the resources.		
	• Previous Mineral Resource estimates have been published for all deposits including Scanlan. There are no production records. The current estimate is similar to previous estimates.		
	 No assumptions have made with respect to recovery of by-products (eg: silver) 		
	• No ore loss due to deleterious elements or other non-grade variables of economic significance was modelled.		



Criteria	Commentary	
	 Block size is 5m, with cubic blocks used to facilitate pit optimization. 5m blocks sizes are appropriated for data spacing in the x (east) and z (vertical) directions, as sections are generally spaced at 50-100m (or more) the block size is small for the y (north) direction. A bench height of 10m is assumed with the possibility of mining at ½ bench height if warranted. 	
	• A variety of information is stored in the block model, including geological domain codes interpolated grades for copper, specific gravities (SGs), net smelter return (NSR) calculations, metallurgical zones, and block classifications.	
	 Only a single variable (Cu) was estimated, no assumptions have been made between variables. 	
	• The outer grade shell that reflects interpreted folded stratigraphy was used to constrain the resource estimate and treated as a hard boundary for grade interpolation. Internal boundaries betweeen structural and mineralogical/weathering domains were treated as soft boundaries during grade interpolation.	
	• Data was not capped as a cumulative probability plot indicates that only a single population was present. Only 2% of the composites are greater than the mean plus two standard deviations.	
	 Model validation steps included visual comparison of block grades relative to drill holes on cross-sections and comparison of statistical summaries of assay, composite, and block grades. Different methods of interpolation such as OK to ID2 or Nearest Neighbour (NN) and past estimations were also compared. 	
Moisture	General	
	Tonnes have been estimated and are reported on a dry basis.Moisture content has not been tested.	
Cut-off	Little Eva, Turkey Ck, Bedford, Lady Clayre and Ivy Ann Deposits	
parameters	Not applicable. Previously disclosed in other ASX announcements	
	Scanlan Deposit	
	• An algorithm was used to generate a net smelter return value for each block in the model using mining, processing and all other costs, and metallurgical recoveries as determined by the Feasibility Study and assumed copper prices. The lowest profitable NSR value was converted to a copper grade rounded to 2 significant figures to use as	



Criteria	Commentary			
	a reporting cut-off grade.			
	Cut-off	Low	Mid	High
	Copper zone	0.26	0.32	0.39
	Transition zone	0.20	0.27	0.33
	Sulphide zone	0.17	0.23	0.28
Mining factors	GeneralPlanned extraction is by c	ppen pit mining	g.	
assumptions	 Little Eva, Blackard, Turkey Ck, Bedford, Lady Clayre and Ivy Ann Deposits Not applicable. Previously disclosed in other ASX announcements. 			
	 Scanlan Deposit Reported recoverable resource estimates assume vaying degrees of selectivity based on a standard anticipated SMU size of 5mN by 5mE by 5mRL. 			
	 Open pit mining methods are planned with a 10m bench height ~8m spaced blast holes for grade control. Reported resources constrained by Whittle (Lerchs-Grossman) pit shell generated u costs and recoveries determined by the Feasibility Study and a \$ long-term copper price. 			resources are enerated using
Metallurgical	Scanlan Deposit			
factors or assumptions	• No metallurgical assumptions have been built into the Sc		the Scanlan	
	 Modeled domain boundaries capture mineralogical varitions that enable application of metallurgical factors in subsequent pit opimisations. 			
	 Metallurgical amenabilit historical and that conduct 			
Environmental factors or	tal Little Eva, Blackard, Turkey Ck, Bedford, Lady Clayre and Ivy An Deposits		e and Ivy Ann	
assumptions	 Not applicable. Previously disclosed in other ASX announcements. Scanlan Deposit 			
	 Scanlan Deposit Scanlan (and Blackard) mining activities under Environmental Authority (the original g	granted Eva C	opper Project



Criteria	Commentary
	mine paln in the 2016 amended EA. The deposits will be re-included as a part of planned Major EA Amendment submission; as they haved been included previously and as required environmental and heritage survey data exists, this is expecteted be straight forward. As such there are no know restrictons that would impact development of the resources.
	 Baseline and ongoing studies form part of EA requirements.
	• No environmental factors were deemed necessary for the resource estimate.
Bulk density	Scanlan Deposit
	No bulk density data available.
	• Bulk density values assigned for the deposit are based upon comparable material type at the Blackard deposit where data from drill core is available.
	 Assigned values are by material type: Oxide zone 2.08t/m³, copper zone 2.18t/m³, transition zone 2.35t/m³ and sulphide zone 2.5t/m³.
Classification	General
	 Mineral Resources have been classified in the Measured, Indicated and Inferred categories, in accordance with the 2012 Australasian Code for Reporting of Mineral Resources and Ore Reserves (JORC Code).
	• A range of criteria have been considered in determining classification including data quality, confidence in the geological model, geological continuity, grade continuity, drillhole spacing, estimation technique and estimation parameters such as search strategy and conditional bias measures.
	• The classification considers all available data and reflects the Competent Persons views of the deposits.
	Little Eva, Blackard, Turkey Ck, Bedford, Lady Clayre and Ivy Ann Deposits
	 Not applicable. Previously disclosed in other ASX announcements. Scanlan Deposit
	• Classification of the resource into Measured, Indicated and Inferred categories is based on the amount of drill hole assay composites (spatial density of assay data) and proximity of that data to block being interpolated. The number of composites from any single drill hole was



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Criteria	Commentary
	restricted so that classification is directly related to the number of drill holes with proximity to the block being estimated.
	 The resource classification is geostatisically based and conforms to the Competent Persons view of the deposit.
Audits or reviews	Little Eva, Blackard, Turkey Ck, Bedford, Lady Clayre and Ivy Ann Deposits
	• Not applicable. Previously disclosed in other ASX announcements. Scanlan Deposit
	• The resource estimate has been reviewed by S. Collins, a mining engineer who is independent of the company who concludes that the Mineral Resource Estimate is suitable for reporting in accordance with Canadian NI:43-101 and Australian JORC (2012) requirements.
Discussion of relative	Little Eva, Blackard, Turkey Ck, Bedford, Lady Clayre and Ivy Ann Deposits
accuracy / confidence	• Not applicable. Previously disclosed in other ASX announcements. <i>Scanlan Deposit</i>
	 No production data is yet available for comparison.
	• The competent person considers the global mineral resource estimate to be a good representation of minable tonnes and grade using appropriate mining methods. The relative accuracy of the estimate locally, is reflected by the resource classification

Section 4: Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in section 3, also apply to this section)

Criteria	Commentary
Mineral Resource estimate for conversion to Ore Reserves	 General The stated Mineral Resources for each deposit is inclusive of the corresponding Ore Reserves presented in this disclosure.
Site visits	GeneralThe Competent Persons have visited site.
Study status	General



Criteria	Commentary				
	 A Feasability Study was published by CMMC in 2018 for the Eva Copper Project which did not include the Blackard and Scanlan deposits. This revised Feasbility study incorporates the Blackard and 				
	Scanlan deposits ir	nto the Eva Cop	per Project.		
Cut-off	General				
parameters	• The copper price us pricing. This value				
	 Material above 'Run Of Mine' (ROM) ore cut-off grade will be processed by the plant as mined. 				
	• Material above 'low grade ore' cut-off grade (calculated breakeven grade), but below the ROM ore cut-off grade, will be stockpiled and processed later in the processing schedule.				
	• Mining cut-off were back calculated from the mine schedule generated from the block model and pit design.				
	 The following net smelter return (NSR) cut-off values were u generate the LOM schedule: 			es were used to	
	Pit	HG Cut-off Value (\$/t)	MG Cut-off Value (\$/t)	LG Cut-off Value (\$/t)	
	Little Eva (Phases 1-6)	15.50	12.50	8.95	
	Turkey Creek (Phases 1-2)	15.50	12.50	8.95	
	Bedford (North/South pits)	15.50	12.50	9.35	
	Lady Clayre (W, N, S pits)	15.50	12.50	10.32	
	Ivy Ann	15.50	12.50	11.44	
	Blackard (Phases 1-3)	15.50	12.50	9.35	
	Scanlan (North/South pits)	15.50	12.50	10.32	
Mining factors	General				
or assumptions	 The Ore Reserves are reported within pit designs. Designs are based on bulk open pit mining using conventional drill and blast, load and haul practices. 				
	Underlying pit optimisations were carried out on the Measured, Indicated and Inferred Mineral Resource categories.				
	Pit optimisations, p estimates were cor	•			



Criteria	Commentary
	Optimisations incorporated a pre-strip of oxidised rock and copper oxide mineralisation.
	• A series of pit optimisations were completed for each deposit based on input parameters. These optimisations were used to determine where starter pit and subsequent cut-backs would commence, as well as the final pit extents.
	 Overall pits slopes for all deposits is 43° except for the Little Eva hanging wall which is 52°.
	• For the Little Eva pit design, expected poorer ground conditions on the western pit wall resulted in the haul road being maintained on the eastern wall using a series of switchbacks. In general, the ramps (30m wide) were assumed to be at a maximum 10% gradient and suitable for safe two-way operation of 140t capacity trucks allowing for windrows and drains. The lower portion of the pit has been designed as a single access ramp (15m wide) to reflect lower traffic intensity and minimise waste development. Similar ramp dimensions were utilised for the the Blackard, Scanlan, Bedford, Lady Clayre and Ivy Ann pit designs, however a spiral configuration was assumed viable.
	• A minimum mining width of 60m was adopted for the base of all pits and between subsequent pushbacks.
	 No geotechnical assessment has been conducted on the satellite pits however geotechnical logging indicate conditions equal to or better than those seen at Little Eva.
	Summary of pit optimisation input parameters:
	• Base case copper and gold prices of \$2.75/lb and \$1,250/oz were used to establish the final pits using a break-even cut-off. Mining and haul costs were part of the cut-off calculation applied to every tonne of material mined.
	 NSR cut-off values for each deposit are as follows:
	 Little Eva and Turkey Creek\$8.95/t De Kend (Nerth and Coeff) and Diad and an arrest for a filled and the set of the set o
	 Bedford (North and South) and Blackard\$9.35/t Lady Clayre (West, North, South) and Scanlan\$10.32/t
	• Ivy Ann\$11.44/t
	 Mining dilution was accounted for in the modelling of the larger size blocks (5 m x 5 m x 5 m).
	Operating cost estimates by area are:



Criteria	Commentary		
	Operating Cost Area	LOM Total	Unit Cost
		(excl. preproduction)	(excl. preproduction)
		(\$ million)	(\$/t milled)
	Mining	881	5.26
	Processing	868	5.14
	G&A	95	0.56
	Transportation	72	0.43
	are 78% where a	•	
	apply to all depos	ndor and native title acce its.	ess agreement royalties
Metallurgical	General		
factors or assumptions	mineralogical stud tests that include culminating in a b	l character of the ore h dies, grind liberation tests bench scale variation and ulk test on a representation	, and extensive flotation d closed cycle tests and ve ROM sample.
	Historic pilot plant testing supports metallurgical results and assumptions.		
	and produce a m (and 3 g/t Au whe recovery metho	is designed to treat 11.4 arketable concentrate we n treating gold-bearing o ods, including crushin tation, and tailings dispos	ith a grade of 28% Cu res) using conventional g, grinding, gravity
	•	31.2 kt/d of copper ore w of 75% sulphide ores a	•
	The plant will use	a primary grind of 165 µ	m and 53 µm regrind.
	 No significant con identified in testw 	ncentrations of deleteriou ork concentrates.	is elements have been
	• The plant utilises	simple proven industry st	andard technology.
	was full or part	of sample material used i diamond drill core. A sn work was completed on R	nall proportion of early
	Little Eva		
	Only sulphide cop Eva deposit.	per ore is considered for t	treatment from the Little
	• The predominant	copper mineral in sulph	ide ore is chalcopyrite



Criteria	Commentary	
	that is coarse grained and readily liberated and recovered by established standard flotation techniques.	
	• Samples tested were sourced from the entire range of depths within the planned pit. The majority of testwork has been completed on material from the Central domain (ROM and low-grade ore) and the Southern domain (predominantly lower grade ore) with less work in the higher grade Northern domain.	
	 Little Eva ore constitutes approximately 57% of proposed plant feed. Little Eva has been the focus of detailed metallurgical testwork that is the primary input for metallurgical recoveries used for pit optimisation (94% copper & 78% gold recovery) at a 165 µm grind and 53 µm regrind. 	
	Bedford, Lady Clayre, Ivy Ann & Turkey Creek	
	• Only sulphide copper ore is considered for treatment from the Bedford, Lady Clayre, Ivy Ann & Turkey Creek deposits.	
	• At Bedford, Lady Clayre, Ivy Ann the predominant copper mineral in sulphide ore is chalcopyrite that is coarse grained and readily liberated and recovered by established standard flotation techniques.	
	• At Turkey Creek sulphide ore contains a mix of hypogene bornite, chalcocite and chalcopyrite.	
	• Testwork carried out to date indicates that sulphide ore from the Bedford, Lady Clayre, Ivy Ann and Turkey Creek deposits will perform similarly to Little Eva ore with respect to copper and (where relevant) gold recovery. Overall, these pits show average copper recoveries of 88% to 95%, and represent high-grade sources of high recovery material.	
	Blackard & Scanlan	
	• Two types of ore will be treated from the Scanlan and Blackard deposits. These are the shallower Native Copper ore and deeper Copper Sulphide ore.	
	• Extensive mineralogical tests have identified the Native Copper ore is dominated by particulate native copper with lesser amounts of cupiferous hydrobiotite, cuprite, chalcopyrite, bornite, chalcocite and covellite.	
	• The ore typically demonstrates slow flotation kinetics. A longer residence time and late stage sulphidization of oxide-rimmed	



Criteria	Commentary
	grains typically results in improved copper recovery in the rougher.
	• Due to the variability and processing challenges associated with the native copper ore type, 319 flotation tests have been performed on non-blended (no sulphide ore feed) ore samples from Blackard, and 16 on Scanlan.
	• On a flotation basis, the native copper zones typically achieve 60% recovery, with an additional 2% to 3% achievable by gravity methods. Recovery is highly variable as deportment shifts from native copper to sulphides, requiring flexibility within the processing flowsheet between gravity and flotation operations to achieve an average of 63% overall recovery. This ore is typically very soft, resulting in low comminution costs and high mill throughputs.
	• The Blackard and Scanlan sulphide copper ore displays similar mineralogical characteristics to the Turkey Creek deposit with a mix of hypogene bornite, chalcocite and chalcopyrite copper sulphides.
	• Sulphide copper ore from these pits is anticipated to behaviour similarly to Turkey Creek sulphide ore. Limited testwork by Base Metallurgical Laboratories (Basemet) displayed copper recoveries between between 89% to 95% at a mass pull of 10%.
Environmental	General
	• An Environmental Authority (EA) for the Project has been granted. The initial EA application process included a voluntary Environmental Impact Statement and Environmental Management Plan. A Major Amendment application to the EA was submitted and approved in 2016
	• The EA from the DES regulates the environmental management of the Project and sets out key environmental management conditions. The current EA is based on the previous 2016 mine layout. Changes to the mine layout and throughput increases set out by this Feasibility Study update will require submission of a Major Amendment. /
	• Key risks associated with release of contaminants into the environment have been considered un the FS with the design incorporating surface water management control dams and inclusion in the TSF design of a low-permeability basin, cut-off drains, and monitoring.
	The Qld Government introduced rehabilitation and Financial



Criteria	Commentary	
	Assurance (FA) reforms subsequent to grant of the current EA and previous Feasibility Study that included the <i>Mineral and Energy</i> <i>Resources (Financial Provisioning) Act</i> 2018 (MERFP Act) that was passed in November 2018. New regulatory requirements result from the reforms and have been considered in the FS project development schedule.	
	 Sustainable Mining Solutions and MBS Environmental are engaged as environmental consultants to CMMC; managing environmental surveys, EA submissions and providing support with the collection and preparation of precribed routine baseline monitoring. 	
Infrastructure	General	
	• Details of the proposed project are described in the attached ASX announcement.	
	• The project is located in an established mining district with close access to required infrastructure. It is approximately 65km by road to Cloncurry.	
	• Power supply is to be provided via a proposed 11km transmission line from the Dugald River mine substation.	
	• The terms of the Glencore concentrate sale agreement are for mine gate off take. Glencore will be responsible for transportation of the concentrate product for the duration of the agreement.	
	• Ground water will be sourced primarily from pit dewatering bores at active pits and the proposed Cabbage Tree Creek borefield. Back up water can be purchased from the Lake Julius - Ernest Henry water pipeline which is 2.5 km from the plant.	
	• A fly-in fly-out work force is to be complemented by local drive in- drive out employees from Cloncurry and Mt Isa. Accommodation will be on site in a 300 man village or in Cloncurry.	
	• Mine site infrastructure layouts and designs have been revised by internal personnel, along with external providers Ausenco, Merit, KCB and SECEC.	
Costs	General	
	 Appropriate cost estimation techniques were used throughout the studies. 	
	Costs were correctly apportioned to either capital or operating cost	



Critoria	Commentent	
Criteria	Commentary	
	categories.	
	• The mining costs were provided by reputable mining contractors.	
	• The processing, engineering and other costs were obtained from quantities determined from material take off, direct costs and schedules of rates or spare and first fill requirements.	
	• Allowances have been made for royalty charges where appropriate.	
	No allowances were necessary for deletarious elements.	
Revenue	General	
factors	• Head grade and metal production were estimated from the mining and production schedules.	
	• The Eva Copper Project will produce a copper concentrate with a LOM grade averaging 28% Cu and 2.61 g/dmt Au.	
	• The mine is expected to produce on average 163,000 dmt/a of copper concentrate over the LOM.	
	• Any forward commodity price, exchange rate, transport and treatment charge projections were based on the assessment of relevant market information.	
Market	General	
assessment	• An offtake agreement has been finalized, with Glencore International AG for a hundred percent (100%) of the mine's output, with a fixed duration of five years and commencing with the start of mine production. The contract may be extended for a further five-year period, by mutual-agreement. The sale of the concentrate will be made on basis as freight carrier at (FCA) Seller's mine gate.	
Economic	General	
	• Various inputs for economic analysis are as listed under Mining factors or Assumptions.	
	• As financial inputs are in real dollars, a real weighted average cost of capital (real discount rate) for the project was calculated and compared to values derived by independent experts in published reports for similar projects in Australia.	
	• The selected real discount rate (weighted average cost of capital) of 8.0% was within the range used by independent experts for similar and recent Australian projects.	



Criteria	Commentary	
	• The Eva Copper Project is an Australian project. All stated costs are denominated in US dollars unless otherwise specified.	
	• The economic analysis has been run with no inflation on a constant dollar basis.	
	• The project assumes a long term AU\$:US\$ exchange rate of 1.55.	
	• The Project is in Queensland Australia and sits within an Australian registered company which will be subject to Commonwealth of Australia income tax at a flat rate of 30%.	
	• As with many metal mining projects, the results of the analysis revealed the Project is most sensitive to copper price, copper recovery, and copper head grades. Refer to the graphed below for the sensitivity analysis results.	
	\$800	
	\$700	
	\$600	
	\$500 \$400 (0)	
	Ф \$ \$400	
	© \$300	
	\$200	
	\$100	
	\$- 0.80 0.90 1.00 1.10 1.20 Base Case Input Adjustment Factor	
	Cu Grade, % Cu Price, US\$/lb Exchange Rate, AUD:US\$ Operating Cost Capital Cost Cu Recovery, %	
Social	General	
	• All access, heritage and compensation agreements required with key stakeholders at Little Eva, Bedford, Lady Clayre, Blackard, Scanlan and Turkey Creek are in place.	
	• Further agreements will be required as part of any Mining Lease application for Ivy Ann.	
	The Project area is uninhabited, the closest sensitive receptor is Mount Roseby homestead, approximately 17.5 km southeast of	



Criteria	Commentary	
	Little Eva pit and processing plant while the closest pit, Scanlan is 1.1 km west of the homestead.	
Other	General	
	 Natural risks such as flooding, have been considered in the design and work undertaken to mitigate against any ill effects from up to a a Probable Maximum Flood (PMF) event. 	
	• It is considered that the current planning and layout can be developed into a viable operation. However, there are several opportunities which can be explored prior to implementation which, if completed, will improve the outcome.	
	• All legal social and government factors have been reviewed and do not show any signs of hindering the viability of the project.	
	• All titles have been checked against the Government of Queensland's database and appear in order. The primary permits required are already in place. It is not expected that any outstanding permits or required amendments will be an issue as no negative receptors have been identified.	
Classification	General	
	• Only native copper and sulphide ore classifed as Measured and Indicated Mineral Resources and processed in the mining schedule was converted to Ore Reserves.	
	 In accordance with CIM (Canadian Institute of Mining, Metallurgy and Petroleum) classification guidelines, only Measured and Indicated Mineral Resource categories are converted to Proven and Probable Mineral Reserves, respectively, through inclusion within the open-pit mining limits. Inferred Mineral Resources are treated as waste, with an assigned grade of zero. 	
	• The results appopriately reflects the Competent Person's view of the deposit.	
	 No Probable Ore Reserves have been derived from Measured Mineral Resources 	
Audits or	General	
reviews	Internal peer reviews were undertaken.	
	Previous Ore Reserve Estimates	
	 October 2009 (Universal Resources) - Little Eva, Blackard and Scanlan. 	



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Criteria	Commentary
	 June 2015 (Altona Mining) - Little Eva, Bedford, Lady Clayre & Ivy Ann. June 2016 (Altona Mining) – Turkey Creek. November 2018 (Copper Mountain) - Little Eva, Turkey Creek, Bedford, Lady Clayre & Ivy Ann .
Discussion of relative accuracy / confidence	 General No production data is yet available for comparison. The assigned Reserve Classification reflects the Competent Person's assessment of the accuracy and confidence levels in the estimate. The confidence levels reflect production volumes on a Life of Mine and annual basis.

Abbreviations:

DGPS – Differential Global Positioning System; IOCG – Iron-Oxide-Copper-Gold; SMU – Selective Mining Unit; RC – Reverse Circulation; RAB – Rotary Air Blast; PERC – Percussion; AC – Air Core; RDH – Rotary; DD – Diamond; EA – Environmental Authority



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JORC TABLE 1 FOR FEASIBILITY STUDY

1 EXECUTIVE SUMMARY

The Eva Copper Project (the Project) is 100% owned by Copper Mountain Mining Corporation (CMMC, or the Company) through a wholly-owned subsidiary Copper Mountain Mining Pty. Ltd. (CMMPL). The Project is in North West Queensland, approximately 76 kilometres (km) northwest of Cloncurry, and 194 km northeast of Mount Isa.

The Eva Copper Project is anticipated to mine 170 million tonnes (Mt) of ore and 381 Mt of waste from seven open pit deposits, with a minimum projected mine life of 15 years. The seven deposits in order of size are Little Eva, Blackard, Scanlan, Turkey Creek, Lady Clayre, Bedford, and Ivy Ann. Mineral Reserves will be mined using conventional earthmoving equipment, and will be hauled to a processing plant by way of haul roads from each pit. Waste material will be stacked in waste dumps adjacent to each pit, except for some material that will be used to construct the tailings storage facility (TSF) and bund walls around the open pits.

The processing plant will process 11.4 million tonnes per annum (Mt/a), operating at 31,200 tonnes per day (t/d), through a conventional crushing, high pressure grinding rolls (HPGR), milling, gravity, and flotation plant, for the fifteen-year life-of-mine (LOM) duration.

Existing major infrastructure closely surrounding the Project site includes the Burke Developmental Road, located 8.5 km to the east of the Project, which connects Cloncurry with Normanton. A power transmission line installed by MMG Limited (MMG)'s Dugald River mine is located 11 km south of the Project. A water pipeline that runs from Lake Julius to the Ernest Henry Mine traverses the southern portion of the Project site. A residential area, known as the Mount Roseby Homestead, is located approximately 17.5 km to the south of the Project plant site. Current infrastructure located on the Project site itself is minor, and includes dirt tracks for exploration, water points, and fences.

Major infrastructure required to be developed for the Project includes:

- Processing plant, workshops, laboratory, administration, security, and training offices
- Seven open pit mines, pit dewatering, diversion channels, and bund walls
- Tailings Storage Facility
- An 11 km, 220 kV power transmission line from the Dugald River mine
- An employee accommodation village to house 300 personnel
- New intersection from the Burke Developmental Road, an 8.5 km-long site access road, and haul roads
- Water wells at Little Eva, Blackard, and approximately 2 km north of the Little Eva pit
- Telecommunications infrastructure.



1.1 Key Facts

Units of measurement used in this report conform to the metric system. All currency is United States dollars (US\$) unless otherwise noted.

Table 1-1 shows a list of facts for the Eva Copper Project described in this NI 43-101 Technical Report.

Table 1-1:	Eva Copper Project Summary
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			Copper	Gold	Cor	ntained Metal
Mineral Resources and Mi (sulphide only)	neral Reserves	Tonnes (Mt)	Grade (%)	Grade (g/t)	Copper (Mlb)	Gold (koz)
Total Mineral Resources	- Measured and	260.7	0.42	0.04	2,419	330
Indic	ated					
- Infe	erred	46.3	0.42	0.04	415	51
Total Mineral Reserves – Pr	oven and Probable	171.0 ⁽¹⁾	0.46	0.05	1,718	260

	Feasibility Study 2018	Feasibility Study Update 2020
Production Summary		
Project life (years)	12	15
Eva Copper Project strip ratio (waste:ore [w:o])	1.9:1	2.2:1
Average processing rate per annum (Mt/a)	9.687	11.388
Copper recoveries, % (sulphide/native copper ores)	93	87
Gold recovery, %	78	78
Copper concentrate grade (%)	25	28
Milled tonnes over LOM (Mt)	117	170 ⁽¹⁾
Target grind (µm)	225	165
Recoverable copper, LOM (Mlb)	959	1,502
Recoverable gold, LOM (koz)	203	205
Average copper in copper concentrate, (Mlb/a)	76.7	99.2
Average gold in copper concentrate, (koz/a)	15.5	13.5
Costs		
Initial capital cost (\$ million)	350	443 ⁽²⁾
Operating costs (\$/t milled)	12.11	11.39
Operating (C1) cash cost per pound copper after credits (\$)	1.74	1.44
LOM sustaining capital (\$/lb)	0.11	0.02
Royalties (\$/lb)	0.16	0.13
Project Economics		



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	Feasibility Study 2018	Feasibility Study Update 2020
LOM revenues after smelter charges (\$ million)	2,851	4,140
Total LOM free cash flow (\$ million)	556	1,091
After-tax NPV (8.0% discount rate) (\$ million)	256	437
After-tax internal rate of return (IRR) (%)	28	29
Assumptions (Long Term)		
Copper price	3.08	3.04
Gold price	1,310	1,362
AU\$ to US\$ exchange rate	1.32	1.55

Note: ⁽¹⁾There is a 661 kt difference between the Mineral Reserve at 171.047 Mt and the LOM schedule at 170.386 Mt. The Mineral Reserves were computed in Maptek's Vulcan software, which uses proportional blocks to compute volumes. The LOM mining schedule was generated in Geovia's Mine Scheduler, using whole blocks to compute volumes. ⁽²⁾After preproduction revenue of \$11.2 million.

1.2 Project Overview

Copper Mountain Mining Pty. Ltd. (CMMPL) is a wholly-owned subsidiary of Copper Mountain Mining Corporation (CMMC, or the Company). CMMPL is located in Queensland, Australia, and was formerly known as Altona Mining Limited (Altona). The Project is located approximately 76 km northwest of Cloncurry in North West Queensland, Australia, and has extensive exploration potential in the approximately 4,000 km² (379,000 hectare [ha]) mineralized land package.

CMMC commissioned Ausenco Limited (Ausenco)to redesign and redevelop the 2018 Feasibility Study process plant and associated site infrastructure, and to provide technical input into the preparation of this National Instrument (NI) 43-101-compliant Feasibility Level Technical Report. In addition, CMMC commissioned Klohn Crippen Berger (KCB) to redesign the 2018 Knight Piésold Ltd. (Knight Piésold) TSF and to provide input to water management, and Merit Consultants International (Merit), a division of Cementation Canada Inc., to develop the capital cost, construction management, and execution plan of the Project.



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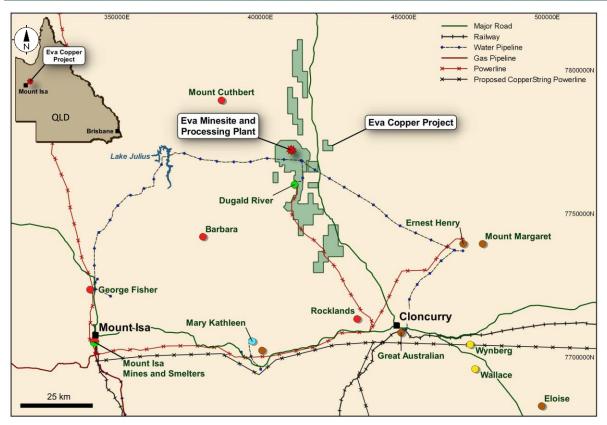


Figure 1-1: Eva Copper Project Location, Tenure, Plant, and Regional Infrastructure

The Project is proposed to be a large, open pit copper-gold mining operation with an associated gravity and flotation processing plant, similar to other operations in the Mount Isa and Cloncurry area. The Project comprises the large Little Eva open pit and six smaller satellite pits, which will deliver a sulphide and native copper ore mixture in a ratio of 75% to 25%, respectively, to a 11.4 Mt/a processing plant adjacent to the Little Eva and Turkey Creek pits.

The Little Eva deposit was the subject of a major drilling programme from 2010 to 2012, which consequently more than doubled the deposit's contained Mineral Resources. The enlarged Little Eva deposit was the focus of many feasibility studies, comprising a simple operation treating copper-gold sulphide ore. However, after the 2018 CMMC Feasibility Study, CMMC performed additional infill drilling on the Blackard deposit in 2019, and subsequently included the Blackard and Scanlan deposits in this updated Technical Report, thereby increasing the capital cost, but improving the Project reserves by 45% (from 117 Mt to 170 Mt), the Project NPV by 71% (from \$256 million to \$437 million), and the LOM recoverable copper by 57% (from 959 Mlb to 1,502 Mlb).

The process plant redesign was guided by extensive additional metallurgical testwork, and is in several ways similar to the Company's processing plant near Princeton, British Columbia, Canada, the New Afton processing plant near Kamloops in British Columbia, Canada, and the Ernest Henry processing plant in Queensland, 60 km distance from the Eva Copper Project.



It is estimated that over 28 years a total of \$46.9 million has been expended on exploration, resource development, metallurgical and engineering studies, compensation payments, government fees, and charges by Altona's predecessor, Universal Resources Limited (Universal), Universal's partners, and by parties who held the Project prior to Universal. Altona spent approximately \$21.0 million from February 2010 through March 2018, and CMMC has spent \$4.8 million since taking ownership of CMMPL.

Responsible for specific report sections, the qualified persons (QPs) as defined under NI 43-101 (by virtue of their education, experience, and professional association, and their membership or good standing with appropriate professional institutions or associations) are as follows:

- Paul Staples, Mining and Metals VP and Global Practice Lead, Ausenco Limited (Ausenco)
- Alistair Kent, Senior Project Manager, Merit Consultants International (Merit)
- David Johns, Senior Geotechnical Engineer, Klohn Crippen Berger (KCB)
- Peter Holbek, Vice President Exploration, Copper Mountain Mining Corp. (CMMC)
- Stuart Collins, P.E., Mining Consultant, SEC Enterprises Corp. (SECEC)
- Mike Westendorf, Director Metallurgy, Copper Mountain Mining Corp. (CMMC)
- Roland Bartsch, Vice President and Country Manager Australia, Copper Mountain Mining Pty. Ltd. (CMMPL)
- Richard Klue, Vice President Technical Services, Copper Mountain Mining Corp. (CMMC).

This report is based on a combination of inputs from Ausenco, CMMC, CMMPL, Merit, KCB, Knight Piésold, MBS Environmental (MBS), and Rockwater Hydrogeological Consultants (Rockwater).

1.3 Reliance on Other Experts

The QPs' opinions contained herein are based on public and private information provided by CMMC and others throughout the course of the study. The authors have carried out due diligence reviews of the information provided to them by CMMC and others for preparation of this report. The authors are satisfied that the information was accurate at the time of writing, and that the interpretations and opinions expressed are reasonable and are based on a current understanding of the mining and processing techniques and costs, economics, mineralization processes, and the host geological setting. The authors have made reasonable efforts to verify the accuracy of the data relied on for this report.

1.4 Property Description and Location

The Eva Copper Project is located 76 km northwest by road from Cloncurry, and 194 km northeast by road from Mount Isa, a regional mining centre. Access to the Project is via the sealed Burke Developmental Road from Cloncurry. This road passes 8.5 km to the east of the proposed processing plant site and the Little Eva and Turkey Creek pits. The site is also 11 km north of the major operating Dugald River zinc mine.

The Project is 100% owned by CMMC. The planned pits and Mineral Resources are within five granted Mining Leases (ML), except for the Ivy Ann pit, which is within the Exploration Permit for Minerals (EPM) 25760 (King). The MLs total an area of 143 km², and are situated across from two



pastoral lease holdings and within one Native Title grant. There are two freehold lots granted in the late 1800s, and 100% owned by the Company, that lie within the MLs; the first sits over part of the Little Eva deposit, the second over part of the Longamundi deposit.

Necessary agreements are secured with the pastoral leaseholders and Native Title party (Kalkadoon People) that set out conduct and compensation terms for the planned mining activities to proceed. Additional third-party agreements and consents have been secured for the Project access road from the Burke Developmental Road. An application has been submitted to the Department of Natural Resources, Mines and Energy (DNRME) for the realignment of the mine access road proposed in the current design.

Numerous royalties apply to the Project. Royalties on minerals are payable annually to the Queensland State Government on an ad valorem basis, with various costs being permitted as a deduction from sales revenue. Copper and gold royalty rates vary between 2.5% and 5.0% of value, depending on average metal prices, as per Schedule 3 of the *Mineral Resources Regulation* of 2003. No state royalty on copper is applicable to the two freehold lots owned by the Company Several royalties also apply to the Project from purchase agreements and are payable to several parties variably across portions of the Project area. These apply to all of the deposits in the Project mine plan: a total 1.5% net smelter return (NSR) royalty is applicable to the Little Eva, Blackard, Scanlan, Turkey Creek, Bedford, and Lady Clayre deposits, and a 2% NSR royalty is applicable to the lvy Ann deposit. Compensation for the effects of mining activities on the Native Title of the Kalkadoon People has been agreed upon.

In addition to the granted MLs, the key environmental and permitting consideration for a mining project in Queensland is the approved Environmental Authority (EA) from the Department of Environment and Science (DES), the administrating authority for the environmental management of the Project.

The Queensland Government introduced rehabilitation and Financial Assurance (FA) reforms subsequent to grant of the current EA and previous Feasibility Study that included the *Mineral and Energy Resources (Financial Provisioning) Act* 2018 (MERFP Act) that was passed in November 2018. New regulatory requirements result from the reforms and are included here.

Key EA regulatory management issues, particularly in the mine development period, are:

- EA Major Amendment application. The current EA is based on a previous 2016 mine layout. Changes to the mine layout will require submission of an EA Major Amendment to the DES. This is a straightforward requirement with application preparation and pre-lodgement meetings.
- Progressive Rehabilitation and Closure (PRC) plan submission. Organizations carrying out mining activities in Queensland are legally obligated to rehabilitate the land. Recent legislation reforms require holders of an existing EA for a mining activity relating to a mining lease approved through a site-specific application granted prior to passage of the PRC plan legislation (as per Eva), to develop and submit a PRC plan to the DES. As mine development at Eva has not commenced, a PRC plan is required to be submitted in conjunction with the proposed EA Major Amendment application.
- Estimated Rehabilitation Cost (ERC) decision. An ERC decision is required to be in effect before commencing any activities under an EA. The ERC is the estimated cost of rehabilitating the land



on which a resource activity is carried out, and preventing or minimizing environmental harm, or rehabilitating or restoring the environment in relation to the resource activity. DES is responsible for deciding the ERC for an EA for resource activities. The ERC came into effect in 2019 under the MERFP Act reforms, and replaces the previous Plan of Operations (PoO) requirements.

- ERC scheme Financial Assurance (FA). This is required to be lodged with DES (either as a contribution paid to the scheme fund, or as a surety given under the MERFP Act) prior to any activities being allowed to commence. The amount of the FA required is calculated in accordance with DES procedures, based on the implementation of site-specific rehabilitation and closure tasks, using independent contractor third-party rates. The amount of the FA is directly related to the activities authorized.
- Design plan for the Cabbage Tree Creek diversion. Final detailed plans will need to be formally submitted, and approval received, prior to construction being allowed to commence.
- Environmental offset requirements. The Project triggers the requirement of an offset due to the disturbance of regional ecosystems resulting from the disturbance of Cabbage Tree Creek. There are two options for offsets: a financial settlement, or a proponent-driven offset which may include approved conservation work programs. A series of submissions are required, including Significant Impact Details, Offset Report, and Notice of Election at least four months prior to commencement of any site work (Significant Residual Impacts). To fulfil its obligations, the Company intends to opt for a financial settlement, but is interested in investigating a proponent driven offset (at least in part) involving the rehabilitation of Cabbage Tree Creek utilizing an indigenous contractor.

1.5 Accessibility, Climate, Local Resources, Infrastructure, and Physiography

The Project tenements are in North West Queensland, 76 km northwest of the town of Cloncurry and 194 km (by road) northeast of Mount Isa, a regional mining centre. Current site access is by way of gravel roads from a sealed road that passes 8.5 km to the east of the proposed plant site. The site is also 11 km north of the major operating Dugald River zinc mine, owned by MMG.

The town of Cloncurry is located on the railway line from Townsville to Mount Isa, and has container handling facilities, an airport that hosts both commercial and fly-in/fly-out (FIFO) jet aircraft services, and a regional fuel depot. It also has schools, hospitals, and other services. The Project lies within the Shire of Cloncurry, which is the local government administrative area. The Shire offices are also based in Cloncurry.

Grid power is generated in Mount Isa at two gas-fired power stations, and is transmitted from Mount Isa to Cloncurry. A 220 kV power line has been constructed from the Chumvale substation near Cloncurry to the Dugald River mine. CMMC received a term sheet from CopperString, the proponent for developing a high voltage electricity transmission line to connect electricity users in the North West Minerals Province (NWMP) and the Mount Isa region to the National Electricity Market (NEM) at Woodstock near Townsville. This study allowed for power supply from Mount Isa for Years 1 to 3, and from CopperString from Year 4 onwards.

The Cloncurry region is semi-arid, with a distinct hot, wet season from November to March, which is typical of inland northern Australia. Average monthly temperatures range from 10.6°C to 38.5°C, with extremes recorded from 1.8°C to 46.9°C. Rainfall in the wet season largely occurs as storms. Rainfall



is highly variable from year to year, with the region often experiencing both multi-year droughts and large-scale flooding from major rainfall events.

The Project site is serviced by a complex system of surface drainages that flow generally northward. On the western side of the processing plant and Little Eva pit is Cabbage Tree Creek, which is joined by other creeks flowing northward to become a tributary of the Leichhardt River. Creeks and rivers flow only during, and for a brief period following, the wet season.

The Project has groundwater sources from both hard rock fracture zone systems and from a grabenlike structure infilled with Phanerozoic sediments and alluvial deposits within a paleodrainage adjacent to the current course of Cabbage Tree Creek.

The mine site and broader operation area is gently undulating flat topography, following a discrete north-south ridgeline that transects the area on the western side of the Bedford pit. The site is currently crossed by several gravel roads from pastoral and exploration activities. SunWater Limited (SunWater)'s water pipeline from Lake Julius to the Ernest Henry mine crosses the lease area from west to east. The predominant land use is low-intensity cattle grazing, although exploration and mining activities have been conducted over the area since the late 1800s.

1.6 History

The Project has a long history, and has been held under various tenures by a variety of exploration and mining companies. Small-scale mining dating back to the early 1900s has occurred at deposits such as Little Eva, Bedford, and Lady Clayre. Early explorers that contributed significantly to the Project with the discovery of the copper-only or native copper deposits are Ausminda Pty. Ltd., and then CRA Exploration (CRAE), who completed the first substantive work between 1990 and 1996, also defining a small resource at Little Eva. CRAE sold its interest in the Project to Pasminco in 1998. Altona acquired the Project in 2001. Altona purchased the tenement hosting the Ivy Ann deposit from Dominion Metals Pty. Ltd. (Dominion) and Pan Australian Resources NL (PanAust).

The remaining property was acquired by purchasing tenure from both Pasminco and Lake Gold Pty. Ltd. in a 50:50 ownership split between Altona and Roseby Copper Pty. Ltd. (RCPL). In 2004, Altona purchased RCPL, and thus Altona held 100% of the Eva Copper Project resources. Until 2009, work focused extensively on the copper-only resources, with completion of two feasibility studies based on blends of sulphide ore and copper-only ore. From 2009 to 2012, Altona carried out additional drilling, resulting in Mineral Resource upgrades at the Little Eva, Bedford, Lady Clayre, Ivy Ann, Blackard, Legend, and Scanlan deposits. Little Eva's resource estimate was doubled due to the additional drilling.

In 2012, Altona completed a Feasibility Study based on the increased resources at the copper-gold sulphide deposits, and excluding the Blackard and Scanlan deposits. Altona published Mineral Reserves for the Little Eva, Bedford, Lady Clayre, and Ivy Ann deposits as part of the 2012 Feasibility Study. Altona published updates to the Feasibility Study in 2014 and 2017. The 2017 update incorporated the subsequently delineated significant Mineral Resource at Turkey Creek.



MLs and an EA were granted in 2012 based on the 2009 Feasibility Study mine plan. An EA amendment was granted in 2016 based on the revised 2012 Feasibility Study mine plan and the integration of Turkey Creek into that mine plan; this is the current EA.

Altona completed a DFS update in 2017, incorporating the Turkey Creek deposit in the mine plan and significant layout changes that included changes to the size and location of the TSF and a Cabbage Tree Creek diversion channel at Little Eva pit. To support the previous studies, the Little Eva, Bedford, Lady Clayre, and Ivy Ann deposits have had a number of formal Mineral Resource estimates that reflect stages of resource definition dating from 2006 to 2017. The only Mineral Resource estimate for Turkey Creek was completed in 2015. Estimates were largely undertaken by external independent experts, initially by McDonald Speijers, and most recently Optiro, based on data and geological models provided by the Company.

CMMC completed a Feasibility Study in September 2018 in which in-house experts for this study produced revised Mineral Resource and Mineral Reserve estimates. No significant resource drilling was completed since the previous published resource update. However, metallurgical data was collected from existing samples and two new drill holes in the Little Eva pit.

CMMC commenced this report, a Feasibility Study, in 2019, in which in-house experts for this study produced revised Mineral Resource estimates based on additional data and infill drilling at Blackard. Additional metallurgical data was collected from existing samples and from new drill holes at the Little Eva and Turkey Creek pits.

1.7 Geological Setting and Mineralization

The Project area is situated within the Mount Isa and North West Region of Queensland, Australia, an area that is one of the premier base metal-bearing areas of Australia, with mining activities having taken place since the discovery of copper and gold near Cloncurry in the 1860s. The Mount Isa area hosts numerous base metal copper, zinc, and lead deposits of global significance, including the Mount Isa, Ernest Henry, Century, Dugald River, Canington, and Selwyn deposits. The Eva Copper Project is hosted by Proterozoic-aged, metamorphosed and poly-deformed marine sedimentary and volcanic rocks of the Mary Kathleen domain of the Eastern Fold Belt Inlier. Deformation, metamorphism, and plutonic activity took place during the Isan Orogeny, approximately 1,600 to 1,500 million years (Ma) ago.

There are twelve known mineral deposits in the Project area, of which seven have been included in the current mine plan. Mineral deposits are grouped into two types: copper-gold, and copper only. There are five of the copper-gold deposits, all of which are in the mine plan. These deposits are classified as iron oxide copper-gold (IOCG) deposits, where mineralization is associated with regional-scale hematite and albite alteration (red-rock alteration), and localized magnetite alteration. Copper sulphide mineralization, primarily chalcopyrite with lesser bornite, occurs as veins, breccias, fracture fill, and disseminations in mafic to intermediate volcanic or intrusive rocks. Gold is generally correlated with copper, and is recovered in the copper concentrate. Mineralization appears to be localized and/or bounded by faults and other deformation-related structures.

The copper-only deposits are stratabound, locally stratiform, and most occur within metamorphosed calcareous metasedimentary rocks, forming an approximately linear trend stretching over 7 km. The



origin of these deposits is uncertain; they may be deformed and metamorphosed versions of sedimentary or red-bed type copper deposits, or they could be more closely related to the IOCG deposits, but with enhanced stratigraphic controls related to the calcareous beds being particularly reactive with hydrothermal fluids.

All of the deposits have a 10 m to 25 m thick overlying zone of oxidation, where the rock is extensively weathered, and copper sulphide minerals have been leached or converted to various oxide minerals that cannot be recovered by flotation. The oxide zones are treated as waste, but tonnages and copper grades have been estimated. With the exception of the Turkey Creek deposit, the copper-only deposits commonly have a significant thickness of supergene material, where carbonate has been leached from the rock, reducing hardness and density, and the copper occurs as native-copper, chalcocite, and other low-sulphur copper species. The carbonate-leached zone is separated from the underlying sulphide zone by a thin transition zone. Each of these mineralogical zones has been modelled so that resources can be estimated for each and the appropriate metallurgical recoveries can be applied for reserve estimation.

1.8 Drilling

Although exploration work has been recorded within the Eva Copper Project area since 1963, usable drill data dates back to 1988. Total drilling in the seven deposits with planned production includes 1,470 drill holes for 208,637 m. All the drill holes used for Mineral Resource estimation have accurate collar and downhole surveys, including the older holes, which were subsequently resurveyed by later exploration companies (Universal, or more recently, Altona). Most of the drilling was done by reverse circulation (RC) methods, with a small percentage being diamond drill holes (DDH). Approximately 50% of the drilling and 30% of the meterage in the Ivy Ann deposit is from percussion holes. Statistical analysis of the type of drilling, age, and operating company does not indicate any bias to the drill hole assay data. Assay data from two DDHs completed by Sichuan Railway Investment Group (SRIG) in 2017, and two DDH completed in 2018 by CMMC within the Little Eva deposit, provided material for metallurgical testing and were used to verify the resource block model. Two holes were drilled in the Turkey Creek deposit in 2018 and 2019 for grade verification and metallurgical material. Eighteen reverse circulation (RC) holes were drilled in the Blackard deposit in 2019 by CMMC to upgrade resource classification. Assay data from the 2019 RC drilling within the Blackard deposit is statistically indistinguishable from historical drilling.

1.9 Exploration

Mineral exploration on lands of the Eva Copper Project dates back more than 40 years. The exploration database for the area contains information from numerous geological, geophysical, and geochemical surveys carried out by the current and previous operators, in addition to regional government data on geology and geophysics. Almost all data from historical geophysical and geochemical work is compiled in the Company database, and has been used in the design and guidance of current exploration work.

The most useful historical geophysical work includes ground and airborne magnetics and gravity surveys which, when combined with soil geochemistry, provide good drill targeting tools. Induced polarization (IP) and electromagnetic (EM) geophysical surveys have also proven to be useful or have



some benefit in the right circumstances. Continuous improvements in electronic instrumentation, computer data processing, inversion technology for geophysics, and multi-element analysis (particularly in handheld, portable X-ray fluorescence (XRF) units), provide significant rationale to continue geophysical and geochemical surveying on the property.

1.10 Deposit Types

Copper deposits of the Eva Copper Project are of two types. The most significant are those of the IOCG type, which are hydrothermal copper-gold deposits associated with relatively high contents of iron oxide minerals (magnetite or hematite), a general lack of quartz, and extensive sodic alteration. The hydrothermal fluids are believed to be sourced from, and/or driven by, magmatic systems with possible addition of basin brines; however, mineralization is commonly distal (or spatially distinct) from the causative plutonic rocks. Mineralization can take many forms, but the dominant ones are vein networks, breccias, dissemination, and replacement. Both structure (fault or fracture systems) and lithology (chemistry and rheology) are key features in localization of mineralization. The second type of copper deposit is termed copper-only; these deposits do not contain significant gold, and are typically hosted within deformed and metamorphosed calcareous sedimentary rocks as stratabound mineralization. One deposit, Turkey Creek, is a stratabound copper-only deposit within volcanic rocks, and has processing characteristics similar to those for the copper-gold deposits.

There are 12 defined deposits within the Eva Copper Project, ranging in size from 0.7 Mt to over 100 Mt, seven of which are included within the current mine plan. Four are copper-gold deposits, and three are copper-only deposits. Metallurgical recoveries for the copper-gold deposits are favourable, due to relatively coarse-grained chalcopyrite and lesser bornite. All of the deposits have a thin, 10 m to 40 m weathered or oxide zone at surface, for which tonnage and grades have been estimated, but which have been treated as waste within the mine plan. The copper-only deposits hosted within calcareous metasedimentary rocks have additional zones of weathering and/or acid leaching, which has removed carbonate, reducing rock strength and density in addition to changing sulphide mineralogy. In the two such deposits, Blackard and Scanlan, a supergene zone termed native copper occurs below the oxide zone, and contains abundant native copper in addition to chalcocite, cuprite, and other low-sulphur copper species. Extensive metallurgical testing has been carried out on these deposits, with appropriate processing design and estimation of recoveries. Within these deposits a narrow transition zone occurs between the copper zone and underlying sulphide zone.

1.11 Sample Preparation, Analyses, and Security

There is very little documentation about sample collection, preparation, and security for the pre-1997 drilling campaigns, although the nature of the exploration programs, preservation of data, and logging records all indicate that the drilling programs were carried out in a professional and competent manner. Later exploration programs by Universal (beginning in 2002) and Altona (in 2011), which provided the vast majority of the drill data, were carried out with above industry-standard sample collection methods, and appropriate quality assurance and quality control (QA/QC) protocols. RC drilling accounts for more than 90% of the Project samples, and these samples were collected using standard cyclones and splitters at the drill site. Samples lengths were initially 2 m for Universal; however, they were changed to 1 m in 2003. Almost all of Altona's samples were 1 m in length. Samples were bagged and sealed in the field, and shipped to commercial laboratories in either



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Townsville or Brisbane. Regular duplicate samples of RC chips were inserted into the sample stream at a rate of 1 in every 20, and triplicate samples collected at the time of drilling were inserted into the sample stream at the rate of 1 in every 40. Appropriate reference standards and blank samples were inserted at rates of 1 in every 20 and 1 in every 45, respectively. Much of the sample material has been retained, mostly as pulp samples; however, there is some coarse reject material, and it is stored in carefully organized warehouses, which also contain split diamond drill core. All analytical information has been carefully archived in an electronic database, which has been reviewed for accuracy by independent consultants and CMMC.

1.12 Data Verification

Historical drill locations were checked and resurveyed by subsequent operators, and assay data has been examined and checked by third-party consultants involved in previous Feasibility Studies. There is no apparent bias in the assay data from drill campaigns involving four different companies. The resource QP examined drill core on site and found good agreement between geology and historical logs, and visual estimates of copper grade were in agreement with assays. Assay results from drill holes completed to obtain metallurgical samples in the Little Eva and Turkey Creek deposits in 2018, and in the Blackard deposit in 2019, compare favourably to adjacent block grades within the block model, supporting both the database and Mineral Resource estimation.

1.13 Metallurgical Testwork and Process Design

This section summarizes both historical and recent testwork associated with the various ore types on the Project property. For additional information, reference the 2018 Feasibility Study completed by Hatch for CMMC in 2018, the GR Engineering Services (GRES) Definitive Feasibility Study (DFS) for Altona in 2014, and the GRES DFS for Universal in 2009. The previous Feasibility Studies discuss in detail the metallurgical performance of ores from the Little Eva pit and associated satellite pits, which contain classic, flotation-amenable copper sulphide ore types. Work completed as part of the present Feasibility Study expands upon the previous Feasibility Studies and considers the addition of other pits, including those containing native copper-bearing reserves which require more unique processing approaches, as had been the focus of the earlier 2009 DFS. This report generalizes the various ore sources were studied from the perspective of newer technologies, including HPGR for comminution, and direct flotation reactors (DFR) for flotation.

The Little Eva pit is the main ore source for the Project, containing 97.7 Mt at 0.38% Cu. This pit has been well studied, with 145 flotation tests from multiple core and RC chip sources that ranged in scope from benchtop to pilot plant. This ore consistently demonstrates high recovery performance with a high degree of liberation at relatively coarse grinds. The average ore competency lies near the 50th percentile of the JK database, with medium to hard Bond work indices. Copper is present as chalcopyrite with trace amounts of pyrite. Strong flotation kinetics result in high recoveries, concentrating to a good final concentrate grade following a nominal regrind with no pH modification. Overall, this ore type presents low technical risk.

The sulphide satellite pits, comprising Turkey Creek, Bedford, Lady Clayre, and Ivy Ann, are smaller sources, together representing 19.4 Mt of the overall reserve. These ore types are generally similar to



Little Eva from both a comminution and flotation perspective. Some differences include a stronger deportment of copper to bornite, and varying grade distribution. Overall, these pits show average copper recoveries of 88% to 95%, and represent high-grade sources of high recovery material. The specific recoveries for each pit are used as inputs into the mine schedule and financial model.

The copper-only pits, Blackard and Scanlan, are distinctly different from other pits in the area, containing oxide cap, native copper, sulphide transition, and sulphide zones. Combined, these pits represent 53.8 Mt of ore. The native copper zones are the largest copper-bearing zones within these pits, containing a relatively fine distribution of native copper with varying quantities of sulphides. These pits were studied by previous owners; however, several recent updates have been completed. In total, 410 flotation tests (including blended ore feed) have been completed, ranging from benchtop to pilot scale work. On a flotation basis, the native copper zones typically achieve 60% recovery, with an additional 2% to 3% achievable by gravity methods. Recovery is highly variable as deportment shifts from native copper to sulphides, requiring flexibility within the processing flowsheet between gravity and flotation operations to achieve an average of 63% overall recovery. This ore is typically very soft, resulting in low comminution costs and high mill throughputs. Below the native copper-bearing zones of both Blackard and Scanlan are sulphide zones containing bornite and chalcopyrite, behaving similarly to Turkey Creek ore. The flotation response of the ore from the native copper to the sulphide transition zone increases with sulphide content, as expected.

For determining key comminution values for plant design, the 70th percentile of the dataset was used to ensure confidence in comminution equipment sizing. For this feasibility study, Ausenco's proprietary Ausgrind power-based calculation suite was used, which is mainly driven by Dr. Steve Morrell's (SMC testing) parameters and Bond work indices (Lane et al., 2013).

In total, the abovementioned work has been sourced from 25 metallurgical testing campaigns completed at established metallurgical labs throughout Australia and British Columbia, Canada, from 1996 to 2019.

1.13.1 Highlights of Selected Test Results

The following summarizes the main aspects of the test results obtained, which were used as the basis for the process design criteria for the processing plant.

A target ore blend of 75:25 of sulphide ores to native copper ores (Blackard and Scanlan pits only) were selected based on estimated HPGR capacity. The sulphide ore types exhibit average to high ore competency and hardness, whereas the native copper components are considered very soft.

At a target grind of 165 µm, the design plant recovery is 87% using this component ore blend of high recovery sulphide and low recovery native copper. Individual recoveries for each pit were determined based on metallurgical test results, and these were used for the economic model.

The final concentrate grade of 28% is based on locked-cycle and cleaner circuit test results, and represents a reasonable estimate for the final concentrate grade in processing the ore blend. The gravity circuit final product is expected to support this final grade target.



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1.13.2 Comminution

Previous Feasibility Studies presented detailed test information for Axb values, Bond work indices (BWi), and uniaxial compressive strength (UCS). Updated SMC Test® and BWi work was performed in 2019 on several of the pits to ensure that the satellite pits are well understood. Bulk samples from Little Eva and Blackard were sent to the Metso York laboratory to determine HPGR performance. This data was used for sizing the HPGR and determining the plant throughput. Due to the lower specific gravity of Blackard, a 25% ore blend was selected to ensure high HPGR throughput, as this is a volumetric machine.

The full datasets of Little Eva and Blackard were used for determining inputs used in the plant design. The 70th percentile of available data was used by Ausenco in their Ausgrind tool for comminution circuit design.

1.13.3 Gravity and Flotation Recovery

In 2019, samples of Blackard ore were sent to Process Mineralogical Consulting (PMC) in Maple Ridge, British Columbia, to confirm historical mineralogical reports. The results indicated a high-grade gravity concentrate was possible with native copper present at an average grain size of 100 µm. The coarse fractions were heavily deported towards native copper, with increasing deportment of sulphides in the finer fractions. Cuprite was present in complex particles with both native copper and sulphides.

A separate Blackard composite was sent to Gekko Systems Pty Ltd (Gekko) located in Ballarat, Victoria, Australia, in 2019, to assess generating a saleable final concentrate generated by gravity operations alone. This testwork showed very high-grade concentrates can be generated when feeding only native copper sources, and greater than 28% concentrates can be generated when processing feed streams blended with sulphide ore types. Also, in 2019, bulk samples from Little Eva, Turkey Creek, and Blackard were sent to the Copper Mountain Mine metallurgical laboratory, where a pilot scale direct flotation reactor (DFR) was set up to test the viability of the technology. The results were in line with historical recoveries, with the DFRs showing higher selectivity on the rougher stage. However, DFR cells were not selected for the rougher circuit due to concern over risk associated with new technologies; DFRs were selected for the cleaner circuit only, based on positive results seen with the pilot cell operating on Copper Mountain in-stream rougher concentrate.

Updated testwork was performed on Turkey Creek composites at Australian Laboratory Services (ALS) in Perth. The deposit is described geologically as having two separate zones, named the "upper" and "lower" zones. The testwork confirmed that recovery performance is the same for both of these zones, which is in line with historical testwork.

Samples from the Blackard sulphide zone were obtained, with a master composite being sent to Base Metallurgical Laboratories (Base Met) in Kamloops, British Columbia. The testwork confirmed strong recovery performance, more in line with that of Turkey Creek, showing a stronger copper deportment towards bornite.

Additional samples from the sulphide deposits were sent to ALS in Perth, and the results were in line with historical recoveries.



1.13.4 Concentrate Characterization

Detailed chemical analyses were performed on the concentrates produced from the testwork programs, and the results indicate that there appear to be no impurity elements present in the concentrate at a level that will incur smelter penalties. Provision for separate dewatering and containment of gravity concentrates is included in the plant design for future sampling or marketing opportunities.

1.13.5 Tailings Handling

Tailings generated from the bulk samples processed during the DFR testwork were sent to Paterson & Cooke in Denver, Colorado, for tailings characterization. The samples were examined both separately and as a blend. In both cases no concerns were highlighted with tailings settling performance. A reasonable target of 63% solids was selected for tailings thickener underflow design.

1.14 Mineral Resources Estimate

1.14.1 Eva Copper Project Resources

Mineral Resource estimates were prepared by CMMC personnel, based on all drilling conducted up to October 2019. The effective date of the resource estimates is January 31, 2020. Only the Little Eva, Turkey Creek, and Blackard deposits have new data, which is limited to two core holes in the Little Eva deposit, one in Turkey Creek, and eighteen RC holes in the Blackard deposit. The new drilling was primarily to obtain material for metallurgical testing, but additionally for the verification of grades in the historical data, and infill drilling at the Blackard deposit. Resource estimates by CMMC have been completed on all deposits within the mine plan. The resource estimates were made using methods and block sizes deemed appropriate for the anticipated mining methods, mining equipment, and grade control methods described in this report. The constraining pit shells for defining the limits of Inferred resources are based on economic values that are, among other inputs, dependent upon metallurgical recoveries which have been determined from work carried out, and described, in this report. Resources were constrained by Whittle pit shells for the Little Eva and Turkey Creek deposits generated using metal prices of \$3.50/lb Cu and \$1,250/oz Au. Pit shell constraints for the other deposits were generated using metal prices of \$3.50/lb for copper and \$1,250/oz for gold.

A zone of oxidation overlies all of the seven deposits in the Eva Copper Project. The base of the oxidized zone is generally sharp $(\pm 2 \text{ m})$, and was modelled during resource estimation. In the current mine plan, the oxidized material is treated as waste, as currently there does not appear to be any form of economic extraction; however, grades have been modelled and tonnages tabulated for general interest and in the event of possible processing in the future. The tonnage and grade of oxidized material were determined in the same manner and at the same time as the other resource estimations.

The two copper-only deposits in the mine plan, Blackard and Scanlan, were not included in CMMC's previous study, as processing methods and recoveries were uncertain. Metallurgical testing was completed in 2019 on mineralization from the Blackard deposit, which has resulted in determination of a suitable process methodology with reliable recovery estimates, such that these deposits are now included in the mine plan.



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	Tonnes (kt)	Cu Grade (% Cu)	Au Grade (g/t)	Cu Pounds (MIb)	Au Ounces (koz)
Measured	()	. ,	(0)		
Little Eva	56,671	0.39	0.07	492	129
Turkey Creek	6,938	0.47	-	72	-
Blackard*	30,595	0.51	-	343	-
Scanlan*	11,397	0.59	-	147	-
Bedford	-	-			
Lady Clayre	5,113	0.42	0.17	47	28
Ivy Ann	1,107	0.38	0.07	9	3
Total Measured	111,821	0.45	0.05	1,110	160
Indicated					I
Little Eva	65,154	0.34	0.07	486	135
Turkey Creek	6,871	0.44	-	67	-
Blackard*	53,073	0.45	-	521	=
Scanlan*	14,453	0.46	-	146	-
Bedford	3,002	0.54	0.14	36	14
Lady Clayre	2,228	0.40	0.18	20	13
Ivy Ann	4,037	0.35	0.08	31	10
Total Indicated	148,818	0.40	0.04	1,307	172
Measured + Indicated			•		L
Little Eva	121,826	0.36	0.07	978	264
Turkey Creek	13,808	0.46	-	140	-
Blackard*	83,688	0.47	-	864	
Scanlan*	25,850	0.52	-	294	-
Bedford	3,002	0.54	0.14	36	14
Lady Clayre	7,341	0.41	0.17	66	40
Ivy Ann	5,144	0.36	0.08	41	13
Total Measured + Indicated	260,659	0.42	0.04	2,419	330
Inferred					
Little Eva	3,764	0.31	0.07	26	23
Turkey Creek	12,897	0.40	-	113	-
Blackard*	19,457	0.48	-	207	-
Scanlan*	3,432	0.44	-	33	-
Bedford	792	0.42	0.14	7	3
Lady Clayre	4,964	0.36	0.15	40	23
Ivy Ann	961	0.32	0.07	7	2
Total Inferred	46,267	0.42	0.04	431	51

Notes: *Blackard and Scanlan deposit cut-off grades are based on NSR values which vary by mineralogical zone to reflect estimated recoveries and distance from the processing plant. Copper cut-off grades for the low-, mid-, and high-grade cut-offs are provided in Table 14-32.

Mineral Resources:

1. Joint Ore Reserves Code (JORC) and CIM definitions were followed for Mineral Resources.

2. Mineral Resources are inclusive of Mineral Reserves.

3. Mineral Resources are constrained within a Whittle pit shell generated with a copper price of \$3.50/lb, a gold price



- of \$1,250/oz and an exchange rate of AU\$1.35 = US\$1.00.
- **4.** Density measurements were applied (ranges from 2.4 t/m³ to 3.0 t/m³).

5. Significant figures have been reduced to reflect uncertainty of estimations and therefore numbers may not add due to rounding.

1.14.2 Other Deposits Historical Resources

In addition to the Blackard and Scanlan deposits, there are five additional copper-only deposits that occur along an approximately linear trend, extending from the Legend deposit in the north to the Lady Clayre deposit in the south. In general, other than Blackard and Scanlan, the historical resource estimates for these deposits are relatively small. However, most of the deposits remain open to expansion, and in particular the Legend deposit, which is the northern extension of the Blackard deposit, is proximal to mine infrastructure. The Company has not estimated resources in these deposits, and the values presented in Table 1-3 are historical estimates only.

Deposit	Tonnes (kt)	Cu Grade (%)	Au Grade (g/t)	Cu Pounds (Mlb)	Au Ounces (koz)
Legend	17,400	0.54	0	207	0
Great Southern	6,000	0.61	0	81	0
Longamundi	10,400	0.66	0	151	0
Caroline	3,600	0.53	0	42	0
Charlie Brown	700	0.40	0	6	0
Total	38,100	0.58	0	487	0

 Table 1-3:
 Eva Copper Project – Historical Mineral Resources, Copper-Only Deposits

Notes: 1. Historical Mineral Resources reported by Altona, in accordance with JORC (2012), for their 2017 DFS. 2. The historical Mineral Resources cannot be relied upon until further due diligence is completed by CMMC. 3. Historical resources reported above a 0.30% Cu cut-off grade. 4. Totals may not add due to rounding.

1.15 Mineral Reserve Estimate

The Eva Copper Project has a Mineral Reserve of 171 Mt grading 0.46% Cu and 0.05 g/t Au for 1.718 billion pounds (Blb) contained copper, and 260,000 oz contained gold. Approximately 95% of the Mineral Reserve is contained in the Little Eva, Blackard, Scanlan, and Turkey Creek deposits. The Bedford, Lady Clayre, and Ivy Ann satellite deposits compose the remaining 5% of the Mineral Reserves. Little Eva and Turkey Creek will be mined first, and the satellite deposits will supplement the Project's production in the latter years. Approximately 25% of the mill feed will now be softer native copper ores, originating from the Blackard and Scanlan deposit areas.

All deposits have ore tonnages classified as either Proven or Probable Mineral Reserves only, and additional Inferred Mineral Resources are not included in the mine schedule. The Mineral Reserve is summarized in Table 1-4.

All Mineral Reserves are classified and reported in accordance with the 2011 CIM Standard. CMMC considers the Mineral Reserve estimate, checked by QP Stuart Collins, P.E., to be reasonable, acceptable, and reported in accordance with CIM definitions and NI 43-101.



The Mineral Reserves are generated based on the mine designs applied to the Measured and Indicated Mineral Resources only. The design methodology uses both the cut-off grade estimation and economic assessment to design and validate the Mineral Reserves. CMMC is not aware of any mining, metallurgical, infrastructure, permitting, or other relevant factors that could materially affect the Mineral Reserve estimate.

Table 1-4:Eva Copper Project Mineral Reserves, January 31, 2020

Deposit	Mineral Reserve Classification	Cut-off Value (US\$/t)	Ore Tonnes (kt)	Cu Grade (% Cu)	Au Grade (g/t)	Total Cu Pounds (Mlb)	Total Au Ounces (koz)
Little Eva	Proven	8.95	53,907	0.40	0.07	480	126
Lady Clayre	Proven	10.32	2,648	0.46	0.19	27	16
Ivy Ann	Proven	11.44	685	0.44	0.09	7	2
Bedford	Proven	9.35				-	-
Blackard	Proven	9.35	22,951	0.58		295	-
Scanlan	Proven	10.32	6,279	0.72		100	-
Turkey Creek	Proven	8.95	6,151	0.49		66	-
Total	Proven	Varies	92,623	0.48	0.05	975	144
Total Gold Grade only	Proven		57,241	0.41	0.08	513	144
Little Eva	Probable	8.95	43,805	0.36	0.06	348	91
Lady Clayre	Probable	10.32	831 0.45		0.21	8	6
Ivy Ann	Probable	11.44	1,640	0.42	0.42 0.09		5
Bedford	Probable	9.35	2,863	0.56	0.15	35	14
Blackard	Probable	9.35	19,756	0.52		228	-
Scanlan	Probable	10.32	4,987	0.58		64	-
Turkey Creek	Probable	8.95	4,544	0.45		45	-
Total	Probable	Varies	78,425	0.43	0.05	743	115
Total Gold Grade only	Probable		49,139	0.37	0.07	406	115
Little Eva	Proven + Probable	8.95	97,712	0.38	0.07	828	217
Lady Clayre	Proven + Probable	10.32	3,479	0.45	0.20	35	22
Ivy Ann	Proven + Probable	11.44	2,325	0.43	0.09	22	7
Bedford	Proven + Probable	9.35	2,863	0.56	0.15	35	14
Blackard	Proven + Probable	9.35	42,707	0.56	0.00	523	-
Scanlan	Proven + Probable	10.32	11,266	0.66	0.00	164	-



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Deposit	Mineral Reserve Classification	Cut-off Value (US\$/t)	Ore Tonnes (kt)	Cu Grade (% Cu)	Au Grade (g/t)	Total Cu Pounds (MIb)	Total Au Ounces (koz)
Turkey Creek	Proven + Probable	8.95	10,695	0.47	0.00	112	-
Total	Proven + Probable	Varies	171,047	0.46	0.05	1,718	260
Total Gold Grade Only	Proven + Probable		106,380	0.39	0.08	919	260

Notes: 1. CIM Definition Standards were followed for Mineral Reserves. 2. Mineral Reserves were generated using the January 31, 2019 mining surface. 3. Mineral Reserves are reported at an NSR cut-off value of \$8.95/t for Little Eva and Turkey Creek, \$9.35/t for Bedford and Blackard, \$10.32/t for Lady Clayre and Scanlan, and \$11.44/t for Ivy Ann. 4. Mineral Reserves are reported using long-term copper and gold prices of \$2.75/lb and \$1,250/oz, respectively. 5. Average process recoveries used in pit optimization ranged from 90% to 93% for copper sulphide, 63% for native copper, and 78% for gold were used for all deposit areas. 6. Little Eva, Turkey Creek, Bedford, and Lady Clayre have an equivalent 5.3% NSR royalty; Ivy Ann has an equivalent 5.8% royalty. 7. Blackard, Scanlan, and Turkey Creek do not contain gold. 8. Totals may show apparent differences due to rounding.

Rounding may result in apparent differences when summing tonnes, grades, and contained metal content. Tonnage and grade measurements are in metric units. Gold grades are reported in grams per tonne (g/t), and copper grades are reported in percent of total copper (%Cu). All oxide material was considered as waste; however, CMMC will take the necessary actions to segregate this material for future processing.

George Orr and Associates conducted a full stability analysis of an earlier planned Little Eva pit based on geotechnical analysis of 21 oriented DDHs covering both an earlier starter-pit design and the final pit design utilized in this study. The northwest portion of the deposit has poor to moderate ground conditions; however, the majority of the planned pit ground conditions are good to moderate. Overall slope angles of 43 degrees, inclusive of pit ramps, have been recommended and are used in the Little Eva pit design. The eastern pit wall has the best ground conditions, and therefore all access ramps have been placed on this wall.

Pit optimization was completed by CMMC and verified by Stuart Collins, P.E. The metallurgical recoveries used in optimization were derived by GRES and OZMET Metallurgical Consultants (OZMET) from all pre-existing testwork carried out by ALS Ammtec in 2011 and 2012, and updated by CMMC in 2019. Metallurgical, economic, and other assumptions were current in 2017, and were updated by CMMC in 2018. These optimizations formed the basis of pit designs and the Mineral Reserves.

The Little Eva mine design includes a 22-m wide dual lane in-pit haul road at a 10% gradient on the east wall of the final pit. The pit is approximately 1,700-m long, 950-m wide, and 310-m deep.

Mining dilution was accounted for in the modelling of the larger size blocks (5 m by 5 m by 5 m). This block size reflects the large-scale bulk nature of the deposit. The degree of selectivity in mining is relatively low, and varies in differing domains of the deposit. Little Eva and Turkey Creek Mineral Reserve mine design is based upon a minimum mining unit of 5 m by 5 m by 5 m. Mine equipment has been scaled to allow selective mining for this size. Mineral Reserves will be classified in grade control either as run-of-mine (ROM) feed to be sent directly to the processing plant, marginal ore to



be sent to a stockpile for later treatment, or waste. The opportunity exists to improve grade control and reduce unit mining costs.

Optimization of the Blackard, Scanlan, Bedford, Lady Clayre, and Ivy Ann deposits was completed using inputs similar to those used at Little Eva; however, it was assumed that fixed costs were covered by the Little Eva mine, and the cost of haulage to the processing plant was added to each of the satellite deposit ore processing costs. The distances from Blackard and Bedford, Scanlan and Lady Clayre, and Ivy Ann to the processing plant located near Little Eva and Turkey Creek are 6 km, 20 km, and 36 km, respectively. Metallurgical testwork on these deposits indicates that metallurgical characteristics and recoveries are not materially different from the Little Eva deposit. Scheduling of ore extraction from the satellite deposits will mainly commence in Year 3 and continue through the end of the mine life. Marginal material from the satellite pits will be assumed as waste, and will not be transported to the processing plant.

Pits at the other satellite deposits were designed to the same level of detail as Little Eva and Turkey Creek, and the contribution of the other satellites (Blackard, Scanlan, Lady Clayre, Bedford, and Ivy Ann) has grown to 45% of the Mineral Reserves. New pit optimizations and designs will be completed as new Mineral Resource estimates and geotechnical models become available during the Project's development period.

1.16 Mining Method

Conventional open pit mining methods, which include drilling, blasting, loading, and hauling, will be employed at the Eva Copper Project open pits. The Eva Copper Project is estimated to have a twoyear construction period, one of which is pre-production mining. Mining activities are based on open pit mining of the Little Eva deposit at a rate of 31,200 t/d of ore. This primary pit at Little Eva will be supplemented by progressively mining six satellite pit areas at Blackard, Scanlan, Turkey Creek, Bedford North and South, Lady Clayre, and Ivy Ann, to achieve a minimum 11.4 Mt/a mill feed rate.

The mining method involves a 13.4 Mt pre-strip of a starter pit at Little Eva, which includes 1.2 Mt of ore. To sustain a 31,200 t/d production rate during the mine life, stripping will continue at slightly elevated rates for several months after production commences. There will be three pushback pits in Little Eva, three pushbacks at Blackard, and two pushback pits in Turkey Creek, while Bedford, Scanlan, Lady Clayre, and Ivy Ann will have one phase of mining.

Drilling will be carried out using conventional drill and blast (D&B) blasthole drills with diesel-powered front shovel excavation, and off-highway dump truck haulage. The initial main mining fleet consists of two front shovels with 22-m³ buckets and an operating weight of 400-tonnes each, matched to fourteen (Year -2 and Year -1) 141-tonne off-highway rear dump trucks. This fleet is supplemented by the standard support equipment composed of, but not limited to, track dozers, water trucks, graders, front-end loaders (FELs), light vehicles, and service equipment.

Ore haulage from the Scanlan and Lady Clayre satellite pits will be accomplished with the same mining fleet as discussed above.

Approximately 381 Mt of mine waste will be transported to dumps adjacent to each of the pits, or to the TSF for construction. The TSF is expected to require approximately 65 Mt of mine waste. Waste

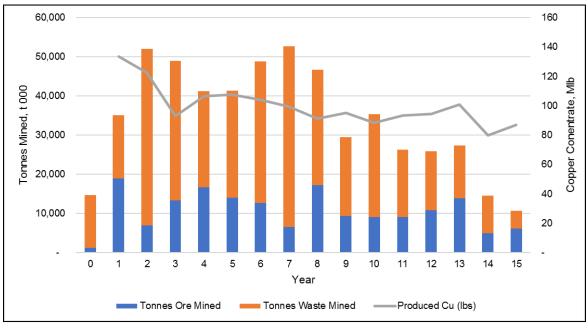


will also be used to construct an engineered creek diversion channel and flood protection bund around the Little Eva pit, known as the Cabbage Tree Creek (CTC) Bund. The channel and bund will redirect wet season water flows in Cabbage Tree Creek away from the Little Eva pit. Diversion bunds and ditches will also be built around the other open pits, where needed.

The ROM ore will be delivered to the ROM pad, where there will be the capability to direct feed from mine trucks to a gyratory crusher with 600 kW of installed power capable of accepting 1-m diameter rock at a rate of 1,733 t/h (75% crusher availability).

The current mining schedule then prioritizes the mining of ore sequentially from Little Eva, Blackard, Scanlan, and Turkey Creek. The other satellite deposits (Lady Clayre, Bedford, and Ivy Ann), which only account for 5% of the Mineral Reserves, will commence mining towards the middle to end of the mine life. The proximity of Turkey Creek to the mill makes it preferable to mine it early in the mining schedule. Further investigation and rescheduling will be carried out prior to project commencement. Mining of ore from the Bedford pits (North and South) is scheduled to commence in Year 4 and Year 5. Lady Clayre pits are scheduled to be mined in years six to eight, and Ivy Ann in Year 5 through Year 6. As noted previously, three of the satellite pits are quite small compared to the Little Eva and Blackard pits.

Dewatering of the open pits will be required. A plan of dewatering wells, horizontal drains, and sumps is envisioned. A detailed plan will be developed during the Project's development period. It has been estimated that the Little Eva pit dewatering will discharge approximately 4,000 m³/d, and the Blackard pit dewatering approximately 2,000 m³/d. This water is slated to be used as make-up water in the processing plant.



The mining schedule and schedule of production of copper in concentrate is shown in Figure 1-2.

Figure 1-2: LOM Schedule (kt/a) and Copper Production (Mlb/a)



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1.16.1 Life-of-Mine and Process Production Schedules

Mining will deliver a nominal 11.388 Mt/a of approximately 0.46% Cu and 0.05 g/t Au ROM feed to the processing plant over a 15-year mine life. Table 1-5 is a summary of the Eva Copper Project's LOM mining schedule. Table 1-6 is a summary of the Eva Copper Project's processing schedule.



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Table 1-5: LOM Mining Schedule

Category	Unit	Total	-1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Native Tonnes	t '000s	35,560	-	-	1	3,620	3,302	3,011	2,986	798	2,989	2,922	2,790	2,921	2,961	2,975	2,460	1,824
Native Cu Grade	% Cu	0.62	-	-	0.31	0.57	0.61	0.63	0.66	0.52	0.53	0.56	0.61	0.66	0.68	0.63	0.67	0.74
Native Cu Tonnes	t	220,863	-	-	3	20,610	20,302	18,970	19,706	4,174	15,885	16,354	16,892	19,156	20,231	18,711	16,36 4	13,50 8
Transition Tonnes	t '000s	2,734	-	-	-	12	45	256	542	36	136	78	61	124	279	491	674	-
Transition Cu Grade	% Cu	0.55	-	-	-	0.47	0.65	0.55	0.51	0.47	0.60	0.86	0.41	0.49	0.55	0.56	0.55	-
Transition Cu Tonnes	t	15,022	-	-	-	58	291	1,408	2,752	168	812	676	251	611	1,548	2,729	3,718	-
Sulphide Tonnes	t '000s	132,091	1,168	18,908	6,898	9,643	13,285	10,700	9,155	5,701	14,172	6,301	6,186	6,020	7,597	10,628	2,058	3,669
Sulphide Cu Grade	% Cu	0.41	0.51	0.53	0.43	0.41	0.41	0.42	0.41	0.35	0.33	0.39	0.36	0.39	0.36	0.38	0.40	0.50
Sulphide Cu Tonnes	t	543,767	5,920	100,981	29,902	39,343	54,488	45,320	37,177	20,062	46,989	24,454	22,165	23,272	26,983	40,232	8,199	18,27 8
Total Ore Tonnes	t '000s	170,386	1,168	18,908	6,899	13,275	16,632	13,966	12,683	6,535	17,296	9,301	9,038	9,066	10,838	14,095	5,192	5,494
Total Ore Cu Grade	% Cu	0.46	0.51	0.53	0.43	0.45	0.45	0.47	0.47	0.37	0.37	0.45	0.43	0.47	0.45	0.44	0.54	0.58
Total Ore Cu Tonnes	t	779,653	5,920	100,981	29,904	60,010	75,081	65,699	59,636	24,404	63,686	41,484	39,308	43,038	48,762	61,672	28,28 1	31,78 6
Waste Tonnes	t '000s	380,574	13,52 0	16,132	45,113	35,669	24,541	27,339	36,100	46,185	29,424	20,233	26,265	17,148	15,077	13,245	9,408	5,174
Total Tonnes	t '000s	550,959	14,68 8	35,040	52,012	48,943	41,174	41,228	46,671	52,720	46,720	29,534	35,303	26,214	25,915	27,340	14,60 0	10,66 8
Sulphide Au Grade	g/t	0.05	0.07	0.08	0.02	0.02	0.06	0.06	0.03	0.08	0.07	0.03	0.04	0.05	0.04	0.04	-	-
Sulphide Au Grams	g	8,083,93 8	83,89 2	1,523,09 8	143,39 8	293,16 9	1,071,46 7	820,90 4	387,15 5	511,11 0	1,275,76 3	279,99 7	325,85 4	414,36 0	395,21 7	558,55 3	-	-



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Category	Unit	Total	-1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Sulphide Au Ounces	oz '000s	260	3	49	5	9	34	26	12	16	41	9	10	13	13	18	-	-

Notes: 1. Includes oxidized, transition, low-grade mineralization, and Inferred Mineral Resources in the waste tonnage. 2. Proven and Probable Mineral Reserves are included as ore at NSR cut-off values of \$8.95/t for Little Eva and Turkey Creek; \$9.35/t for the Blackard and Bedford pits, \$10.32/t for the Scanlan and Lady Clayre pits, and \$11.44/t for Ivy Ann. 3. Numbers may not add due to rounding.



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Table 1-6:LOM Processing Schedule

	Unit	Total Avg.	-1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Tonnes Ore Mined	kt	170,386	1,168	18,90 8	6,899	13,275	16,632	13,966	12,683	6,499	17,196	9,359	9,057	9,048	10,74 0	13,88 4	4,903	6,168
Tonnes Waste Mined	kt	380,574	13,52 0	16,13 2	45,113	35,669	24,541	27,339	36,100	46,221	29,524	20,17 5	26,24 6	17,16 6	15,17 5	13,45 6	9,697	4,501
Total Material Mined	kt	550,959	14,68 8	35,04 0	52,012	48,943	41,174	41,305	48,783	52,720	46,720	29,53 4	35,30 3	26,21 4	25,91 5	27,34 0	14,60 0	10,66 8
Stripping Ratio	(w:o)	2.2	11.6	0.9	6.5	2.7	1.5	2.0	2.8	7.1	1.7	2.2	2.9	1.9	1.4	1.0	2.0	0.7
Tonnes Moved	t/d	96,845	79,82 6	96,00 0	142,50 0	133,72 5	112,80 5	113,16 5	133,65 1	144,04 4	128,00 0	80,91 5	96,72 0	71,62 2	71,00 0	74,90 3	40,00 0	30,64 9
Milling and Production																		
Dry Tonnes Milled	kt	170,386	-	11,38 8	11,388	11,419	11,388	11,388	11,388	11,419	11,388	11,38 8	11,38 8	11,41 9	11,38 8	11,38 8	11,38 8	10,86 0
Re-handle Tonnes	kt	31,833	-	1,726	4,843	1,788	-	-	-	4,920	-	2,029	2,331	2,371	648	-	6,485	4,692
Percent Re-handle	%	18	0	15	43	16	0	0	0	43	0	18	20%	21	6	0	57	43
Native Copper Tonnes	kt	35,560	-	-	1	2,833	2,896	2,800	2,986	2,201	2,989	2,922	2,790	2,921	2,961	2,975	2,460	1,824
Native Copper	%		0	0	0	25	25	25	26	19	26	26	25	26	26	26	22	17
Tonnes Milled	t/d		-	31,20 0	31,200	31,200	31,200	31,200	31,200	31,200	31,200	31,20 0						
Head Grades																		
Head Grade - Cu	Cu%	0.46	-	0.56	0.53	0.44	0.49	0.50	0.49	0.45	0.42	0.44	0.41	0.43	0.44	0.47	0.37	0.42
Head Grade - Au	Au g/t	0.047	-	0.083	0.052	0.028	0.066	0.059	0.028	0.067	0.079	0.039	0.040	0.047	0.037	0.038	0.027	0.019
Model Cu Recovery	Avg. Cu Rec. %	87.1	-	95	92	85	87	87	84	88	86	86	87	86	86	86	86	87



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	Unit	Total Avg.	-1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Head Grade - Density	t/m ³	2.6	-	2.8	2.7	2.6	2.6	2.6	2.5	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
Contained Copper	Mlb	1,715		140.5 0	133.17	109.91	122.74	124.33	124.18	112.95	105.87	111.0 1	101.9 9	108.1 9	109.6 1	118.0 1	92.47	100.5 2
Recoveries																		
Recovery - Cu	%	87		95	92	85	87	87	84	88	86	86	87	86	86	86	86	87
Recovery - Au	%	78		78	78	78	78	78	78	78	78	78	78	78	78	78	78	78
Produced Metal																		
Produced Cu	Mlb	1,485		133.4 8	122.46	92.77	106.48	107.60	104.08	99.08	91.20	95.30	88.25	93.06	94.30	100.9 3	79.89	76.37
Produced Au	koz	203		23.63	14.72	8.05	18.94	16.77	7.93	19.32	22.68	11.08	11.46	13.58	10.64	10.79	7.77	5.18
Concentrate Produced																		
Concentrate Produced	DMT '000s	2,433		216.2	198.4	150.3	172.5	174.3	168.6	160.5	147.7	154.4	143.0	151.2	152.8	163.5	129.4	150.8
Concentrate Produced	WMT '000s	2,650		236.3	216.8	164.2	188.5	190.5	184.3	175.4	161.5	168.7	156.2	164.8	167.0	178.7	141.4	164.8
Concentrate Grade	%	28		28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
Moisture %	%	8.5		8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
Payable Metal																		
Payable - Cu	Mlb	1,448		128.7 1	118.08	89.45	102.68	103.76	100.37	95.539	87.94	91.90	85.01	89.74	90.93	97.33	77.03	89.73
Payable - Au	koz	186		21.74	13.25	7.22	17.43	15.10	7.13	17.73	20.87	9.97	10.31	12.19	9.57	9.71	6.99	6.81

Notes: 1. Milled tonnes do not include oxidized, low-grade mineralization, or Inferred Mineral Resources. 2. Contains stockpile and re-handle material. 3. Copper recoveries of 95% for sulphide and 63% for native copper materials.

Production: (M) = Months, (Q) = Quarters, (Y) = Years, (DMT) = dry metric tonnes, (WMT) = wet metric tonnes



1.17 Recovery Methods

The Little Eva processing plant has been designed to produce a marketable copper concentrate with a grade of 28% Cu and containing about 3 g/t Au at a nominal throughput rate of 31,200 t/d. A key update in this feasibility study is the change from a SAG mill and pebble crushing circuit to a secondary crusher and HPGR design. The ball mill has also been upsized in order to support 31,200 t/d at a target grind of P₈₀ of 165 μ m.

The process plant flowsheet developed for processing copper ore from the Eva Copper Project is considered a relatively standard processing plant design for the treatment of copper-bearing sulphide mineral material. All the unit operations selected for the plant design are low risk and of proven technology.

1.17.1 Process Design Description

The following summary of the unit process descriptions is based on the nominal ore throughput rate of 31,200 t/d:

- The ROM ore primary crushing circuit will use a gyratory crusher with a nominal crushing rate of 1,733 t/h (1,925 t/h design) at the availability of 75%. The crusher is a Metso model Mk III 42/65. The crusher will be supplied using haul trucks dumping into a 3-truck capacity dump pocket, equipped with an apron feeder transferring ROM to the primary crusher feed. The primary crusher product size is designed as a P₈₀ of 137 mm.
- A MP1250 or equivalent secondary crusher will operate in a closed loop with a double deck vibrating screen to produce a product size P₈₀ of 35 mm. The screen undersize will be transferred to the fine ore stockpile.
- The fine ore stockpile has a live capacity of 30,086 tonnes. The crushed ore stockpile reclaim system will be equipped with two reclaim apron feeders each capable of supplying 100% of downstream tonnage.
- A 2.4 m by 1.65 m HPGR supplied with two 5.4 MW drives will operate in a closed loop with two 4.2 m by 8.5 m double deck vibrating screens. The target transfer size to the ball mill circuit is a P₈₀ of 4 mm. A nominal and design circulating load has been set at 85% and 130% for the conveyors, respectively.
- The ball mill is a 24-ft diameter by 40-ft EGL with 2 x 7 MW motors. The throughput rate of the grinding circuit will be 1,413 t/h (nominal) and 1,700 t/h (design) at an availability of 92%. The Ball Mill grind product size will have a P₈₀ value of 165 µm. Two roughers, a cleaner, and re-cleaner Jigs operating on a bleed of the ball mill cyclone feed will generate a coarse, high grade gravity concentrate to be sent to final concentrate.
- The rougher flotation circuit will consist of six 300 m³ flotation cells. The circuit has an overall nominal residence time of 35 minutes. Provision is designed for sulphidization in the final two stages of rougher flotations. Rougher concentrate will be reground in the regrind circuit. Rougher tailings will be discharged to the 50 m diameter tailings thickener.
- The rougher concentrate regrinding circuit incorporates a Vertimill[®] (model VTM1500) and cyclones for classification. The regrind circuit product size will have a P₈₀ value of 53 μm. A



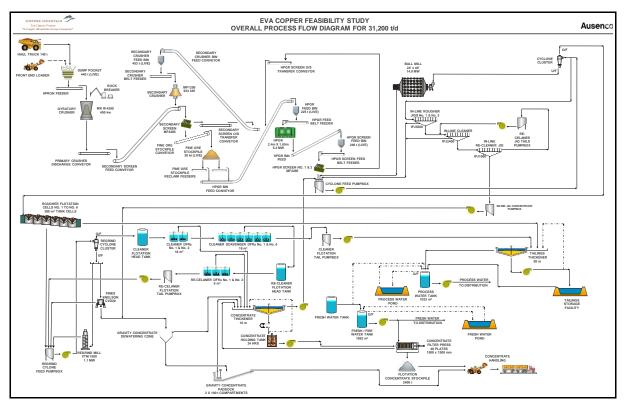
partial underflow stream will be directed to a flash flotation unit producing a final grade copper concentrate with the tailings returned to the regrind mill. A bowl concentrator will operate on a bleed of cyclone underflow, concentrating free native copper collecting within the regrind cyclone loop. This product will be sent to final concentrate.

- The regrind cyclone overflow will feed two 18 m³ DFR first cleaners, producing a >28% concentrate sent to the final concentrate thickener. Six 18 m³ first cleaner scavengers will send concentrate to three 6 m³ second cleaners. The second cleaner concentrate will join the first cleaners concentrate as final concentrate. Tailings from the second cleaners will be recycled to the regrind mill. Tails from the cleaner scavengers will be sent to final tailings.
- The concentrate thickener will collect the concentrate products from the cleaner and recleaner DFR cells. The thickened concentrate will be delivered to the concentrate storage tank, and this will feed the concentrate filter press. The filtered copper concentrate will have a moisture value of 8.5%. The dewatered final concentrate will be loaded onto trucks for despatch to smelters.
- A separate dewatering cone and drying paddock is included for dewatering of gravity concentrates.
- Under nominal design conditions, the copper concentrate production can be 194 kt/a inclusive of gravity and flotation concentrates.
- The concentrate thickener overflow solution will be recovered and used in the grinding and flotation circuit.
- The tailings thickener will combine the rougher and cleaner scavenger tailings for discharging to the TSF as final tailings. Process water will be recovered from the tailings thickener and the TSF for re-use in the plant.
- The process water circuit will provide process water to the grinding circuit and other parts of the plant.
- A fresh water circuit will provide water for reagent make-up, gland service, mill lube systems cooling water, filter press cloth wash, and process water make-up.
- The reagent preparation section will prepare the flotation collector reagent (PAX) and the frother reagent for distribution to the slurry streams. A liquid sodium hydrosulphide circuit will supply sulphidizer to the final stages of rougher recovery. The flocculant required for the tailings and concentrate thickeners will also be prepared in this section. A "test reagent" circuit is included for the testing of additional reagents.
- Various process streams will be sampled automatically on an on-line basis and analyzed for copper to provide the necessary information for process control and a metallurgical balance.
- An assay and metallurgical laboratory will be included in the design.
- Site services, power supply, air supply, and water supply will be included in the design.

The simplified process flowsheet is shown in Figure 1-3 and a 3D layout view of the processing plant is shown in Figure 1-4.



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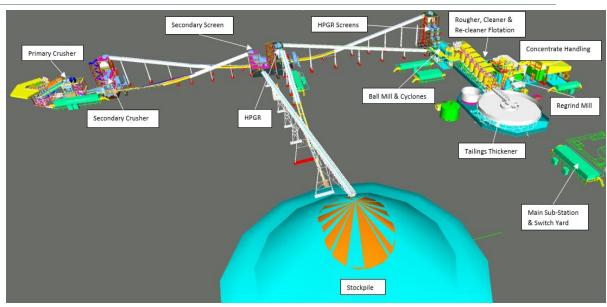


Figure 1-4: Process Plant 3D Layout

1.18 Project Infrastructure

1.18.1 Summary

The Eva Copper mine, plant, and associated open pits are located 76 km northwest of Cloncurry. The site can be accessed by way of the sealed (paved) Burke Development Road, and a planned site access gravel road of approximately 8.5 km.

Infrastructure required to be installed to support the operation includes:

- Roads: main access road, plant site, TSF light vehicle track, explosives and emulsion access road, Cabbage Tree Creek (borefield light vehicle track), and haul roads
- Security office and tag in/out board building
- Administration building, training, first aid, plant crib, and car park
- Control room (primary crusher and rock breaker)
- Control room (grinding area)
- Process plant office
- Concentrate storage shed and weighbridge
- Gravity concentrate paddock
- Reagent storage and building
- Assay laboratory and sample preparation area
- Communication facilities
- Mining infrastructure
- Mine change house
- Truck shop, plant workshop, warehouse, and office
- Tire services pad and services area
- Lubricant storage
- Hydraulic hoses storage
- Fuel storage and dispensing
- Borefields (Little Eva pits and Blackard dewatering wells and Cabbage Tree Creek supply)
- Overland HV transmission line from the tap near Dugald substation (11 km)
- Fresh water supply and treatment
- TSF (424 ha)
- Site sediment management installations
- Creek diversion channel around Little Eva and other pits and surface water bunding
- Explosive bulk storage depot and magazine
- Emulsion facility
- Accommodation village and associated infrastructure.

The broader site infrastructure layout is illustrated in Figure 1-5. For a detailed map of the immediate Little Eva pit and plant area refer to Figure 1-6.

1.18.2 Power Supply

The plant and infrastructure electrical system will be designed and installed to comply with all relevant standards and statutory requirements to provide high reliability and ease of maintenance in accordance with Queensland standards. With 42.5 MW of installed drives, the average power draw for the processing plant during operations will be approximately 30.7 MW.

Power for the processing plant will be supplied from gas-fired generators in Mount Isa for the first three years, at either the Mica Creek power station or the Diamantina power station. Gas supply to these stations is provided by the Carpentaria Gas Pipeline. Power is transmitted along the North West Power System (NWPS) 120 km to the network operator's 220 kV Chumvale substation, adjacent to the town of Cloncurry. From Chumvale, the power is transmitted along MMG's 64 km long, 220 kV, Dugald River overhead transmission line, terminating at MMG's Dugald River substation. A tap will be installed adjacent to the MMG site, and an 11 km extension will be constructed to supply power to the step-down substation (220 kV to 11 kV) at the Project plant site, from which power will be distributed throughout the process plant and to site infrastructure.

The Project has a commercial understanding for access on the MMG Dugald River 220 kV line at the Eva Copper Project demarcation tap point.

For this study the cost of power at site will be US\$0.1211/kWh (AU\$0.1877/kWh) for the first three years of plant production, based on power transmission from Mount Isa. From year four onwards the cost of power will be US\$0.0635/kWh (AU\$0.0985/kWh) based on a term sheet with CopperString, the proponent of developing a high voltage electricity transmission line to connect electricity users in the North West Minerals Province (NWMP) and the Mount Isa region to the National Electricity Market (NEM) at Woodstock near Townsville. Figure 1-6 illustrates the layout for site infrastructure.

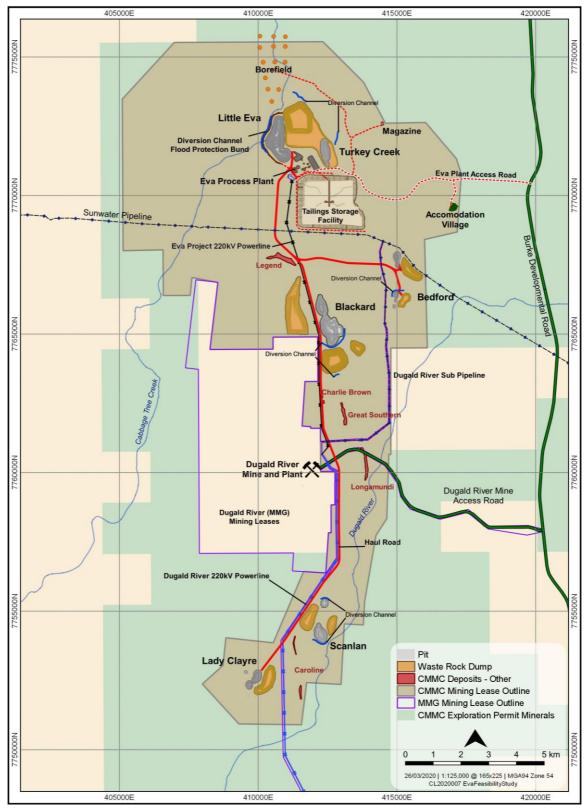


Figure 1-5: Infrastructure and CMMC Tenure

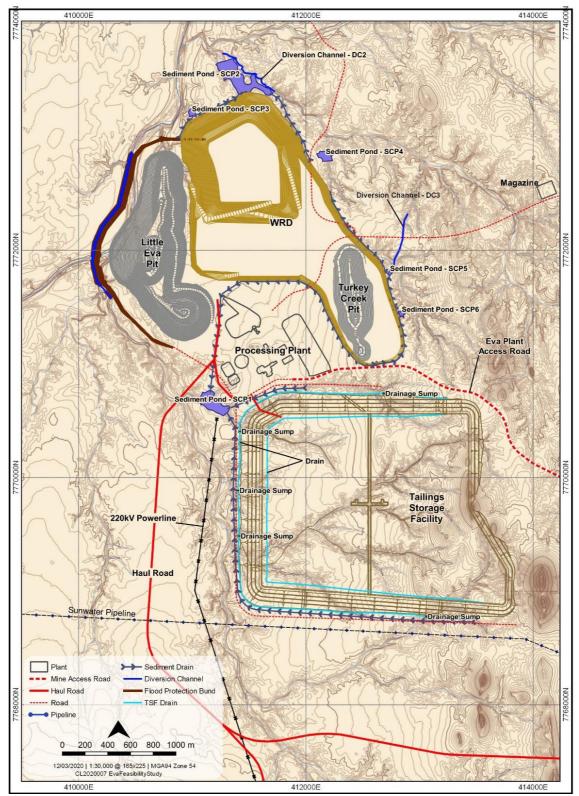


Figure 1-6: Process Plant Area Infrastructure

1.18.3 Water Supply and Treatment

The water requirement for the 11.388 Mt/a (31,200 t/d) processing plant and infrastructure can be supplied by the regional groundwater storages. The Project's water demand is approximately 19,000 m³/d of which the process plant is approximately 14,000 m³/d. The water wells will be powered

by an 11 kV distribution lines. Supply available is 20,000 m³/d under average climatic conditions based on the following supply arrangement.

1.18.3.1 Northern Borefield (Cabbage Tree Creek)

This required water will be supplied from a 15-well bore field, 6.5 L/sec per well, at Cabbage Tree Creek located 2 km north of the Little Eva pit at a supply rate of 8,400 m³/d. The water will be pumped into a 1,200 m³ nominal capacity northern bores collection tank at the western side of the Little Eva pit on elevation, which will then be transferred to the fresh water/firewater tank at the plant. Two water wells are already cased. Step-rate and constant-rate pumping tests indicated 12 L/sec and 10 L/sec, respectively, sustainable over five years.

1.18.3.2 Little Eva Pit

Little Eva pit dewatering will be accomplished by approximately ten dewatering wells. It is calculated that the ten dewatering wells at 5 L/sec will produce a total of 4,000 m³/d of raw water supply. The wells will pump through a dedicated pipeline into the 1,200 m³ nominal capacity northern bores collection tank at the western side of the Little Eva pit.

1.18.3.3 Southern Borefield (Blackard Pit)

This water will be supplied from in and around the Blackard open pit. A 7-well bore field supplying at 3.3 L/sec per well. The southern bore field water will be collected in a 1,200 m³ nominal capacity collection tank on the eastern side of the Blackard pit and pumped over a distance of 7 km to the processing plant fresh-water tank, at a supply rate of 2,000 m³/d.

1.18.3.4 Return Tailings Storage Facility Water

Will supply 2,356 m³/d based on a minimum of 13% return during dry season. The reclaim water will be transferred by a 2-km long HDPE pipeline to the process water tank. During an average wet-season (January to February) up to 80% of return water is available for total of 14,082 m³/d returned. The average decant-return rate over the course of each year (under average climatic conditions) is 27%, for a total of 4,740 m³/d.

Moisture content of the ore is estimated to be approximately 3%. Yearly roads dust suppression will amount to approximately 500,000 m³.

It will also be possible to source additional water from the Lake Julius to SunWater's Ernest Henry pipeline, which is 2 km to the south of the processing plant site.

The potable water for the accommodation village will be supplied from a water well within 1 km from the camp to a tank and then to a water treatment plant to supply 300 L/d per person. A standard reverse osmosis (RO) microfiltration water treatment with UV and/or Chlorine back end dose will be used to ensure potable/drinking water quality.

1.18.4 Tailings Management

KCB was engaged to update a previous TSF Feasibility Study completed by Knight Piésold in 2018. The updated TSF will be located directly south of the processing plant and is classified as a 'High A' consequence facility following ANCOLD (2019) guidelines.

The Eva TSF will be a two-cell paddock facility designed to contain 170 Mt of tailings over approximately 15 years of mine life. The East and West Cells can be operated independently and are separated by a rockfill centre wall, positioned to create cells of approximately equal area. At the ultimate embankment height (maximum ~52 m), the West Cell will have a total footprint area of 216 ha and the East Cell 208 ha. This is a total disturbed footprint area of 424 ha for the TSF.

The perimeter embankments will be zoned earth and rockfill, raised with both the downstream and centreline construction method. The typical dam section will have a sloping upstream low-permeability core, a filter drain, and downstream fine and coarse fill. The filter drain is to control the phreatic surface and provide internal erosion protection, as the decant pond is expected to be against the embankment during the early years of operation.

The TSF will be raised in 12 construction stages. The starter dam (Stage 1) will have a maximum height of approximately 19 m along the western wall. Stages 2 and 3 will be raised by the downstream construction method. By Stages 4 to 12, the decant pond will be centrally located away from the perimeter embankments enabling centreline construction. The filter drain will no longer be required for these raises.

To reduce seepage from the TSF, the impoundment will be lined with compacted low permeability fill material (a combination of reworked in-situ material and imported Zone A fill from selected borrows). Finger drains beneath the TSF embankments, used to lower the phreatic surface in perimeter walls, will drain to collection sumps for pumping back to the TSF.

Tailings will be discharged into the facility by sub-aerial deposition methods, using a combination of spigots at regularly spaced intervals along the perimeter and central embankments. Supernatant water will be removed from the TSF via submersible pumps located within decant towers. Three decant towers will be needed over the lifetime of the facility. The Stage 1 decant tower is located at the centre of the western perimeter wall. Beyond Stage 1, the design intent is to shift the pond towards the central dividing wall between the two cells, where the water return pumps and infrastructure will be located. Solution recovered from the decant system will be pumped back to the processing plant site for reuse in the process circuits.

Seepage and stability analyses have been completed for the LOM and intermediate configurations of the facility. Stability analyses indicate that under static, seismic, and long-term conditions, the TSF meets ANCOLD (2019) design criteria consistent with a High A consequence category facility. This design is currently in the Feasibility Stage and will require additional field investigations and studies during detailed design and prior to construction of the starter embankments.

1.18.5 Logistics

The highway from Cloncurry to Burketown and Normanton on the Gulf of Carpentaria is an existing full-width sealed road that passes 8.5 km to the east of the proposed processing plant site. At Cloncurry, 76 km to the south, it meets the Barkly Highway from Townsville to Mount Isa. Cloncurry has a regional airport, hospital, schools, and other infrastructure.

Concentrate will be trucked to the Glencore smelter at Mount Isa for processing. CMMC has a fiveyear offtake agreement with Glencore.

Alternatives are available through Townsville port as it is a well-established international port capable of handling bulk mineral materials with over four million tonnes of import/export trade mineral handled annually. All infrastructure required to operate in this manner is already in place and available to the Project.

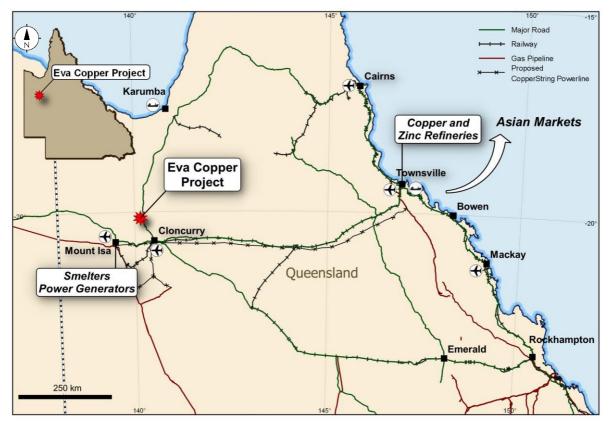


Figure 1-7: Infrastructure in North West Queensland

1.19 Market Studies and Contracts

1.19.1 Concentrate Marketing

The Eva Copper Project will produce a copper concentrate with a LOM grade averaging 28% Cu and 3 g/dmt Au. The mine is expected to produce on average 163,000 dmt/a of copper concentrate over the LOM. The material will be considered a "clean concentrate" with no deleterious elements that would cause smelters to penalize the material.

An offtake agreement has been finalized, with Glencore International AG for a hundred percent (100%) of the mine's output, with a fixed duration of five years and commencing with the start of mine production. The contract may be extended for a further five-year period, by mutual-agreement. The sale of the concentrate will be made on basis as freight carrier at (FCA) Seller's mine gate.

Treatment and refining charges with fees paid to smelters by mines for converting the concentrate into refined copper, will be based on the annual prevailing market terms (annual benchmark) established between major international copper concentrate producers and major Japanese smelting companies. These charges will reflect current market fundamentals at the time of sale.

Discussions with other potential off-takers (smelting companies and concentrate trading companies) indicated interest in Eva concentrates should they become available at the end of the initial offtake agreement. The marketing cost assumptions are based on discussions with major smelters and concentrate trading companies and on the Company's own views and experience in the copper concentrate market.

1.19.2 Copper Price Forecast

The lack of investment in copper mines and mine expansions lead many analysts to believe that there will be a tighter market for copper concentrates well into the 2020s. On the other hand, forecasted world copper demand, fuelled by electronic vehicles and renewable energy, is expected to see growth

well into the future. The increase in demand and the lack of commitment on the supply side tends to give support to the copper price (Table 1-7).

Table 1-7: Copper Prices

	2020	2021	2022	2023	Long Term
Copper Prices (\$/lb)	2.84	2.89	2.97	3.03	3.04

Source: CIBC Global Mining Group - Consensus Commodity Price Forecasts February 28, 2020.

1.19.3 Smelter Charges

Copper concentrates are sold by mines to smelting companies and merchants who charge treatment and refining charges (TC/RCs) to process the material. TC/RCs increase in an over supplied market and decrease when concentrate availability is tight. Treatment charges are calculated per dry tonne (dmt) of concentrate and refining charges are calculated per pound of payable copper. Consensus points to a tight concentrate market given the limited project development as well as expected smelter expansion required to meet the copper demand. This is especially true in China where deficits are forecasted for the next several years.

	2020 Benchmark	2021 Forecast	2022 Forecast	2023 Forecast	Long Term Forecast
Treatment Charges (\$/dmt)	62.00	75.00	75.00	75.00	76.00
Refining Charges (¢/lb)	6.20	7.50	7.50	7.50	7.60
Total TC/RC (¢/lb)	16.62	20.10	20.10	20.10	20.37

Other terms used in the study are internationally recognized standards for copper and precious metal payables and precious metal refining charges.

- Copper: 96.5% with a minimum 1-unit deduction
- Gold: 92.0% with gold content between 3 g/t and 5 g/t; and 94.0% with gold content between 5 g/t and 7 g/t

The typical refining charge for gold at this grade range is \$5/oz.

1.19.4 Precious Metal Prices

Table 1-9 shows the precious metal prices obtain from CIBC Global Mining Group—Consensus Commodity Price Forecasts February 28, 2020.

Table 1-9: Precious Metal Prices

	2020	2021	2022	2023	Long Term
Gold (\$/oz)	1,521	1,507	1,466	1,434	1,362

1.19.5 Concentrate Markets

With a long-term off-take agreement now in place Eva copper concentrates are fully committed for the first five years of production; however, if the contract is not extended past the present agreement, other markets would be readily available.

The copper concentrate market is predicted to move to a deficit position in the next few years as global copper concentrate output is expected to grow at a slower rate, making it difficult to meet demand of expanded smelting capacities. China is expected to continue to expand its smelting capacity and although there are no firm smelter projects outside China, additional smelter capacity in countries such as Indonesia, Iran, Mongolia, and Zambia, are strong candidates for potential recipients of Eva Copper Project concentrates. Governments in developing economies that have mine production are also looking for additional concentrates to ensure enough smelting capacity to treat concentrates locally.

Should the initial sale and purchase agreement not be extended, the clean concentrates produced at the Eva mine would have no trouble finding a home in Asian smelters or with international trading companies.

1.19.6 Royalties

State of Queensland royalties apply to all lands except freehold claims prior to 1904. State royalties range between 2.5% and 5.0% of metal value, less certain allowable expenses. If the concentrate is processed in Queensland (Mount Isa) there is a 20% reduction in the copper royalty. 100% of the royalty savings from the Queensland Government is for the account of the Seller (CMMC). Royalties are discussed in detail in Section 4.

1.20 Environment, Permitting, Social, or Community Impact

To support EA applications, flora and fauna surveys and waste and tailings rock characterization were undertaken. This characterization work was also done to support mining of the open pits, location of the waste dump, TSF, and Cabbage Tree Creek diversion bund and channel. From flora and fauna surveys the key management issues relates to three regional ecosystems listed as "endangered" or "of concern" that generally have a restricted distribution along major drainages. Clearing in these areas triggers an environmental offset requirement (in the form of a financial settlement or conservation work programs to be approved by DES).

The Project area is uninhabited with the closest sensitive receptor being Mount Roseby homestead, approximately 17.5 km southeast of Little Eva pit and processing plant while the closest pit, Scanlan is 1.1 km west of Mount Roseby. Noise and air quality monitoring is a requirement of the EA, and dust baseline monitoring has been completed.

Tailings and waste characterization work has shown both to be geochemically benign.

As a condition of the EA, water and sediment management requires surface water and groundwater monitoring programs prior to commencement of mining activities. Baseline water and sediment quality monitoring programs have been in place since 2012 and were expanded in 2018 with new baseline monitoring wells established at Little Eva Turkey Creek, the TSF, and the processing plant location as required ahead of mine construction.

The key risks associated with release of contaminants into the environment have been considered with the TSF, waste rock dump (WRD), and processing plant area designs incorporating surface water management control dams, cut-off drains, monitoring, and low permeability basin for the TSF. Waste dumps will be rehabilitated to ensure revegetation of the area.

The evidence of European history in the area is not of local or State significance. The recognized traditional owners and Native Title holders of the Project area are the Kalkadoon People. The Company has a Cultural Heritage and Access Agreement and Management Plan with the Native Title holders covering the full area of the Project MLs. The ML area has been the subject of systematic Indigenous cultural heritage clearing, protection, and management programs.

In addition to managing environmental and heritage responsibilities the Company recognizes and has reflected the importance it places on building and training its workforce, supporting the local community and stakeholders, and a commitment to achieve the highest standards of safety and health for its business practices. While the operation will be dependent on FIFO and drive in/drive out employees, the Company is committed to employing residents from the community and senior employees in professional and technical roles will be offered the option of relocating to Cloncurry at the Company's expense. Through our agreement with the Kalkadoon People, the Company will strive to provide employment opportunities for local Indigenous people. The key community risk requiring management from commencement of operations through the LOM will be the additional vehicular traffic along the Burke Developmental Road and through Cloncurry.

1.21 Capital and Operating Costs

1.21.1 Capital Costs

The capital cost estimate for the Project was developed by Merit Consultants International Inc. A Division of Cementation Canada Inc. with input from CMMC and various independent engineers and consultants according to their scope of work.

The capital cost estimate is based on a combination of equipment supplier quotes, supplier pricing, construction contractor input, and experience with similar sized operations. This Project estimate meets the American Association of Cost Engineers (AACE) Class 3 requirements and is prepared to form the basis for budget authorization, appropriation, and/or funding purposes. It has an expected accuracy range of $\pm 15\%$.

This capital cost estimate assumes contracts will be awarded to reputable contractors on a lump sum or unit price basis in an open shop environment.

The CAPEX was prepared in Australian dollars which were converted to United States dollars using a rate of 1.55 at the time of preparation in Q1 2020. The projected initial modelled development capital cost for the Project is estimated at US\$454.5 million, including a US\$41.5 million contingency allocation (equates to 10% of the direct and indirect costs). There are approximately 1.6 million direct and indirect man-hours associated with the construction of the Project, including pre-production personnel with the workforce peaking at 450 people. Estimated capital costs are shown in Table 1-10.

Capital Cost Items	Initial Years (Year -2 to Year 1) (US\$ millions)	Year 2 to Year 15 (US\$ millions)	Total CAPEX (US\$ millions)
Direct Costs			
Mining	35.2	61.4	96.6
Process Plant	150.8	-	150.8
Infrastructure	67.6	-	67.6
Ancillaries	25.6	-	25.6
Total Direct Costs	279.3	-	340.6
Indirect Costs			
EPCM	25.1	-	25.1

Table 1-10:	Eva Copper Project	Development	Capital Cost Summary

Capital Cost Items	Initial Years (Year -2 to Year 1) (US\$ millions)	Year 2 to Year 15 (US\$ millions)	Total CAPEX (US\$ millions)
Freight and Logistics	7.6	-	7.6
Indirect Costs	24.3	-	24.3
Owner's Costs	15.3	-	15.3
Total Indirect Costs	72.3	-	72.3
Subtotal	351.5	61.4	412.9
Contingency	41.5	-	41.5
Total Project Capital	393.1	-	454.5 ⁽¹⁾
Pre-production revenues	(11.2)	-	(11.2)
Total Capital	382.0	61.4	443.4
Sustaining capital	-	34.0	34.0
Rehabilitation	1.28	12.9	14.1
Overall Project Capital	383.3	108.2	491.5

Note: ⁽¹⁾Total Project CAPEX is 704.5 in Australian dollars.

1.21.2 Operating Costs

Operating cost estimates as shown in Table 1-11 are based on Aon plc's McDonald Gold and General Mining Industries Remuneration Report Australasia Q2 2018 labour rates and supply quotations direct from suppliers. Mining rates are based on the Company assuming the performance of mining activities. Quotations for explosives and mining consumable supplies are based on Q4 2019 supplier bids and fully support cost model build-up.

Power costs are based on indicative energy term sheets and invoice summary received in Q4 2019 The term sheets includes pricing based on contracted energy capacity and an indicative supply arrangement for natural gas supply and transport arrangement. It also includes costs for renewable energy target Large Generation Certificates (LGC) and Small-Scale Technology Certificates (STC), including the CopperString term sheet from year four onwards.

Operating Cost Area	LOM Total (\$ million)	Unit Cost (\$/t milled)
Mining	888.7	5.26
Processing	868.3	5.14
G&A	95.0	0.56
Accommodation and Travel	72.4	0.43
Total	1,924.5	11.39

Notes: Total mining costs are estimated at \$5.26/t milled, or \$1.66/t mined. Royalties for LOM total is \$199.9 million at a unit cost of \$1.18/t milled.

1.22 Economic Analysis

An economic model was developed to reflect projected annual cash flows and sensitivities of the Project. The economic model was created using various assumptions that are based on current and projected economic conditions including, but not limited to, sales prices, operating costs, annual production, ore grades, and exchange rates. All costs, metal prices and economic results are reported in United States dollars (\$) unless otherwise stated.

The Key Inputs and Assumptions used are outlined in Table 1-12.

Table 1-12: Eva Project – Key Inputs and Assumptions (Average LOM Values)

Parameter	Unit	Value
Mine Life	years	15
Total Ore	Mt	170
Total Waste (including 14,074 kt of oxide material)	Mt	381
Processing Rate	t/d	31,200
Average Cu Head Grade	%	0.46
Cu Recoveries	%	87
Au Recoveries	%	78
Cu Produced	Mlb	1,502
Au Produced	koz	205
Cu Price (long-term from Year 2)	US\$/lb	3.04
Au Price (long-term from Year 2)	US\$/oz	1,362
Exchange Rate (long-term)	AU\$:US\$	1.55

Other key inputs and economic factors include the following:

- Discount rate of 8% (sensitivities of other discount rates have been calculated).
- Revenues, costs, and taxes are calculated for each period in which they occur rather than actual outgoing/incoming payment.
- Progressive reclamation totalling to \$14 million over the LOM.
- Nominal 2020 dollars with no inflation and on a constant dollar basis.
- Results are presented on a 100% basis; do not include management fees. The Capital cost of \$49.6 million of mine equipment purchased in Year -1 and Year 1 has been amortized over a lease term of seven years at 5%.
- All pre-development and sunk costs, such as exploration and resource definition costs, engineering fieldwork and studies costs, and environmental baseline studies, were excluded. However, pre-development and sunk costs are utilized in the tax calculations.

Table 1-13 presents a recent update on currencies based on consensus views of major Canadian and Australian banks taking into consideration the current economic volatility.

	Mar-20	Jun-20	Sep-20	Dec-20	Mar-21
AU\$:US\$	0.6000	0.5700	0.6000	0.6300	0.6500
Old Forecast	0.6800	0.6700	0.6800	0.6800	0.6700
Forward Market	0.6140	0.6136	0.6131	0.6124	0.6118
Consensus	0.6700	0.6700	0.6800	0.6800	0.6800

Table 1-13: Commonwealth Bank of Australia, March 31, 2020 (End Quarter Forecast)

Source: CBA, Bloomberg

The Project is economically viable with an after-tax IRR of 29% and NPV at 8% of 437 million. Figure 1-8 shows the projected cash flows from the economic analysis and Table 1-14 summarizes the detailed results of this evaluation.

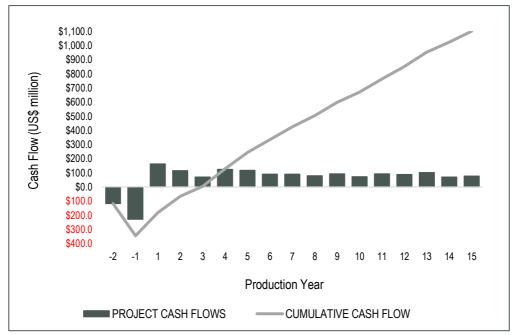


Figure 1-8: Eva Copper Project Annual and Cumulative After-Tax Cash Flows

Table 1-14:	Summary of Economic Results
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Key Financial Metrics	Unit	Value
Net Revenues	\$ million	4,311
Operating Costs	\$ million	1,924
Cash Flow from Operations	\$ million	2,387
Royalties and Transportation	\$ million	371
Taxes	\$ million	447
Cash Flow after Taxes	\$ million	1,568
Sustaining Capital Costs	\$ million	34
Cash Flow after Taxes and Sustaining Capital	\$ million	1,534
C1 Cash Cost per Pound of Copper Produced After Credits	\$ million	1.44
Cash Cost per Pound Produced (after taxes and sustaining capital)	\$ million	1.76
Pre-Tax NPV 8%	\$ million	648
Pre-Tax IRR	%	37
After-Tax NPV 8%	\$ million	437
After-Tax IRR	%	29

1.23 Adjacent Properties

The Eva Copper Project is located within a world-class mineral province richly endowed with an attractive number of commodities and deposit types. It is commonly known that the Mount Isa – Cloncurry region is one of the premier base-metal producing districts in the world with mining dating back to 1867, first at Cloncurry, then from the larger Mount Isa mining centre starting in 1923. There are numerous historical and active mines in the region, with the major, internationally important mines closest to the Project being the Dugald River lead-zinc-silver mine and the Ernest Henry copper-gold mine. Dugald River is the closest, located approximately 11 km south of the proposed Eva Copper Project processing plant site.

Mining properties that surround the Eva Copper Project are predominantly Exploration Permits for Minerals held by CMMC. These permits cover a highly prospective north-south corridor, with similar geology to that which hosts the Project's Mineral Resources. Numerous copper-gold mineralized prospects have been established and are being systematically explored.

Immediate non-mining key local stakeholders associated with the Eva Copper Project are landowners, leaseholders, state, and local governments. The Company has been in contact with the stakeholders for many years and has appropriate agreements in place to allow mining and exploration.

1.24 Other Relevant Data and Information

1.24.1 Project Execution Plan Outline

The Eva Copper deposits will be mined at a rate to produce approximately 31,200 t/d ROM ore for direct feed to the process plant. The flowsheet developed for the Project is a relatively standard copper sulphide processing plant. All the unit operations used are low-risk, proven technology.

- The design life is 15 years
- Key process units include:
 - Single Stage Gyratory Crushing (dual dump capability)
 - Secondary Crushing with closed circuit screen
 - HPGR Tertiary Crushing in closed circuit with wet screening undersize to ball milling
 - Gravity Jig Concentration as a bleed of the cyclone feed line
 - Flotation (Conventional Rougher and DFR Cleaner Scavenger)
 - Concentrate Regrind (Vertimill®), one Cleaner stage and one Recleaner stage
 - Gravity bowl concentrator off regrind cyclone underflow
 - Concentrate Thickening and Filtration
 - Tailings Thickening and disposal.

The Project Execution Plan (PEP) outline has been prepared for the Eva Copper Project's updated Feasibility Study. The Project Execution Plan is intended to define all the base activities of engineering, procurement, construction, and environmental activities, and to ensure that the core elements of the Eva Copper Project's sustainable development framework regarding the interrelationship between the stakeholders, including pastoralists, community members and Native Title holders, and project development are maintained throughout.

CMMC's long- and short-term objectives and integrated assessment of the dimensions of sustainable development encompass the entire mineral exploration to production chain. The core elements of the Eva Copper Project's sustainable development framework are as discussed below.

1.24.1.1 Human Rights

The Company is committed to uphold fundamental human rights and respect cultures, customs, and values in dealing with communities, employees, and others affected by the Company's activities.

1.24.1.2 Project Due-Diligence and Pre-Engagement

The Company is committed to remain informed of the political, economic, social, technical, and environmental characteristics of the area in which it operates. Sound data obtained will contribute to the design and structure of risk management strategies, as well as pre-engagement processes such as preparation for field activities.

1.24.1.3 Community and Aboriginal Engagement and Enhancement

The Company is committed to develop long-lasting economic, environmental, and social benefits through the building of meaningful and transparent relationships with local communities and Native Title holders.

1.24.1.4 Human Resource Development

The Company is committed to provide long-term benefits for the community through areas, such as employment, training, and education.

1.24.1.5 Environmental Integrity and Performance

The Company is committed to manage all operations in a manner that is compatible with environmental protection standards and integrate closure requirements into all stages of the Company's activities.

1.24.1.6 Health and Safety Performance

The Company is committed to provide a safe environment for employees, contractors, and visitors to the Company's facilities, and a commitment to support leadership in preventive and responsive attitudes and behaviours at all levels of the organization to ensure a safe environment.

1.24.2 Engineering, Procurement, and Construction Management

Under the administration of the Owner's Project Manager, the engineering, procurement, and construction (EPCM) team, which will consist of a combination of Owner's personnel embedded within a contracted CM firm, will manage the Project in accordance with the Project schedule, capital cost, health and safety, environmental, and quality targets.

Once the Execution Plan has been finalized and implemented, it is important not to deviate from its original intent, as variances may translate to a change in a specific project driver. Modifications made to the plan should only be done with the intent of improving the base elements of the Execution Plan, without compromising the established sustainable development framework, which takes a disciplined and integrated approach to the Company's activities in areas of governance, social development, economic contributions, and environmental stewardship.

1.24.3 Project Execution Schedule

Merit has prepared a feasibility level schedule that will become the baseline schedule. The overall Project schedule identifies the preferred critical sequences and target milestone dates that need to be managed for the Project to be executed successfully. The future detailed schedules will track the planned and actual progress throughout the duration of the Project using information provided by the engineering groups, contractors, suppliers, field management staff and CMMC.

The total duration for the Project completion is estimated to be 29 months, from start of early infrastructure engineering to commissioning complete. This includes a 19 month project construction duration and assumes commencement of field activities in Month -22 and mechanical completion in Month -3. Detailed engineering is scheduled to start in Month -22 to allow sufficient progress to award mostly fixed-price construction contracts. The purchase of major process equipment is assumed to be completed by Month -8. The schedule accounts for Christmas breaks and rainy season "rain-out" days."

The Feasibility Study Project schedule reflects the EA approval timeline and permits required to be in place to enable commencement of construction activities in Month -22. Detailed engineering is expected to achieve substantial completion in Month -12. A 220 kV powerline and a 220 kV / 11 kV main substation will be ready to energize by the utility by Month -9, allowing for some pre-commissioning activities to start as

soon as they are able to and also allow the accommodation village to come off generator power as early as possible. The Key Project Milestones are shown in Table 1-15.

Table 1-15: Key Project Milestones

Milestone	Date
Early Infrastructure Engineering Starts	-29 months
Project Approval and Start	-25 months
Basic Engineering Complete	-22 months
Detail Engineering Complete	-12 months
Full Construction Starts	-22 months
Utility Power Required	-9 months
Tailings Storage Facility Complete	-3 months
Mechanical Completion	-3 months
Hot Commissioning Starts	-3 months
Commercial Production Starts	Month 1

1.25 Interpretation and Conclusions

The Project area is uninhabited, with the closest sensitive receptor being Mount Roseby Homestead, which is approximately 17.5 km southeast of the Little Eva pit and processing plant and 1.1 km from the Scanlan pit. Noise and air quality monitoring is a requirement of the EA.

1.25.1 Geology, Mineral Resources, and Mineral Reserves

- The Eva Copper Project Mineral Resources are IOCG deposits that vary according to setting. The main deposit, Little Eva, is similar to Ernest Henry.
- Mineralization primarily occurs as chalcopyrite.
- The mineralized zones typically trend north to south and are moderate to steeply dipping.
- The Mineral Reserves listed in Table 15-1 comply with all disclosure requirements for Mineral Resources set out in NI 43-101.
- CMMC and Stuart Collins, P.E., believe the Mineral Reserves are being estimated in an appropriate manner using current mining software and procedures consistent with reasonable practices. The classification of Measured, Indicated, and Inferred Resources conform to Canadian Institute of Mining, Metallurgy, and Petroleum Definition Standards for Mineral Resources and Mineral Reserves dated May 10, 2014 (CIM Definition Standards).
- Mr. Collins is not aware of any mining, metallurgical, infrastructure, permitting, or other relevant factors that would materially affect the Mineral Reserve estimates.

1.25.2 Mining

- Conventional open pit mining methods (drilling, blasting, loading, hauling) will be employed to extract the ore and waste.
- There are seven deposits to be mined: Little Eva, Turkey Creek, Bedford, Lady Clayre, Ivy Ann, Blackard, and Scanlan. None of the deposits has previously been mined. Little Eva, Turkey Creek, Bedford, Lady Clayre, and Ivy Ann represent approximately 70% of the Mineral Reserves.
- Mining by CMMC personnel will begin in the Little Eva pit (Year 1), and in the Blackard and Turkey Creek pits from Year 2 onwards. Mine life is 15 years, with a one-year mining preproduction period. The Project's overall strip ratio (waste tonnes to ore tonnes) is 2.2:1.

- The mine plan estimates that there are 170 Mt of ore grading 0.46% Cu and 0.05 g/t Au, and 381 Mt of waste will be generated over the LOM.
- Topographical relief, climate, haul distances, and geographic location present no issues to the Project.
- Factors that could impact production if not addressed by CMMC are dewatering the pit and slope stability.

1.25.3 Metallurgical Testwork and Mineral Processing

- The competency and hardness values for the 75:25 blend of sulphides and native copper ore sources indicates 31,200 t/d at 165 µm grind is achievable with the updated plant design.
- Little Eva, being the largest source of sulphide ore, is expected to see 95% recovery. The remaining sulphide ore sources are expected to see between 88% to 95% depending on the mineralogy.
- Blackard and Scanlan native copper zones are expected to achieve 63% recovery through gravity and flotation recovery methods.
- The recovery within the native copper zone of Blackard will be variable; however, will average to 63% as shown in testwork. The sulphide zone located below this, is expected to behave similar to Turkey Creek at 88% recovery.
- Extensive work has been done on Blackard. Scanlan has not seen the same degree of study; however, pilot flotation work, and geological observations have shown for it to have the same mineralogical characteristics as Blackard.

1.25.4 Process Plant

- The process plant flowsheet is a standard processing plant design featuring a two-stage crushing and HPGR format with a gravity recovery circuit installed on the ball mill and regrind cyclone loops.
- The processing plant has been designed to produce a marketable copper concentrate grade of 28% Cu and about 3 g/t Au.
- The daily average throughput is 31,200 t/d over the mine life based on conservative ore competency and hardness values.

1.25.5 Infrastructure

This greenfield project will require the following major components to be built:

- Access and site roads
- Accommodation village for Project construction and operational personnel
- An 11.44 Mt/a capacity crushing, milling, and flotation process plant
- A 11 km, 220 kVA transmission line, substation, and site distribution electrical system
- A water supply system to provide approximately 19,000 m³/d of water
- Site administration office complex, and a six-bay truck and plant maintenance shop with attached warehouse facilities
- Tailings storage facility
- Site sediment management installations
- Cabbage Tree Creek diversion channel around the Little Eva pit, and surface water bunding
- Fuel storage and dispensing
- Plant site laboratory
- Communication facilities

- Training and first aid facilities
- Open pit mining infrastructure
- Borefield dewatering wells for the open pits, and the Cabbage Tree Creek supply
- Explosives bulk storage depot and magazine.

1.25.6 Environmental, Permitting, and Social Considerations

- MLs and an EA for the Project have been granted. The EA from the DES regulates the environmental management of the Project and sets out key environmental management conditions. The current EA is based on the previous 2016 mine layout. Changes to the mine layout and throughput increases set out by this Feasibility Study update will require submission of a Major Amendment. These are straightforward procedural processes.
- To support EA applications, all baseline studies (like flora and fauna surveys, or waste and tailings rock characterization) have been undertaken, and these included work to support mining of the open pits, and location of the waste dump, TSF, mine access road, and Cabbage Tree Creek diversion bund and channel.
- The Project area is uninhabited, with the closest sensitive receptor being Mount Roseby Homestead, which is approximately 17.5 km southeast of the Little Eva pit and processing plant and 1.1 km from the Scanlan pit. Noise and air quality monitoring is a requirement of the EA.
- The key risks associated with release of contaminants into the environment have been considered, with the design incorporating surface water management control dams and inclusion in the TSF design of a low-permeability basin, cut-off drains, and monitoring.

1.25.7 Capital and Operating Costs

- Approximately 300 full-time jobs will be directly created by this Project.
- The total Project capital is approximately \$454.5 million, and sustaining capital is estimated to be \$34.0 million at an assumed exchange rate of AU\$1.55 to US\$1.
- Average LOM operating costs are estimated to be \$11.39/t milled (excluding royalties). The C1 cash cost is estimated at \$1.44/lb.

1.25.8 Economics

- The Project has a recoverable copper content of 1,502 Mlb of copper and 205 koz of gold over a 15-year life.
- Project economics are good at a long-term copper price of \$3.04/lb and a long-term gold price of \$1,362/oz.
- A long-term exchange rate of AUS\$1.55 to US\$1 was used.
- At a discount rate of 8%, the after-tax NPV is \$437 million, and the after-tax IRR is 29%.
- This Project is most sensitive to the copper price, copper recoveries, and copper head grade delivered to the process plant. The exchange rate, operating costs, and capital costs may also impact the Project's economics to a lesser degree.

1.26 Recommendations

1.26.1 Mineral Resources and Mineral Reserves

- Drill targets below and within the current pit designs to convert Inferred Resources to Indicated Resources.
- At the Little Eva pit, conduct development drilling ahead of mining to optimize mining selectivity and grade control costs/strategy.

- Perform geotechnical slope studies on the Turkey Creek, Lady Clayre, Bedford, and Ivy Ann deposits.
- Continue detailed mine design and mine planning on the Eva Copper Project prior to production.
- Develop detailed dewatering plans for the Little Eva, Blackard and Turkey Creek pits.

1.26.2 Infrastructure, Process, and Plant

- Perform confirmatory geotechnical investigation of Cabbage Tree Creek bund and the TSF second cell western side.
- Re-evaluate the hydrology and dewatering of the Little Eva, Blackard and Turkey Creek pits in the context of the new geotechnical models.
- Redo the overall site Hydrogeology Report, last done by KH Morgan and Associates (Morgan) in December 2009, to include the Cabbage Creek borefield and potential water bore source for the accommodation village.
- Perform follow up testwork to investigate further improvement of final grade by means of magnetic separation. Some testwork has highlighted that this is an effective means of removing iron bearing minerals, barren of copper, from final concentrate during coarse gravity separation. This combined with additional investigation into the cleaner circuit could yield further improvement on final product grades, improving the economics of the Project.
- Investigate the potential of the gravity concentrate bypassing the smelting process, that might attract a slightly elevated price per tonne.
- Scanlan ore was studied during bench and pilot tests performed in 2006. There is no recent data on this ore source; however, all data and geological observations indicate equivalent behaviour to Blackard ore. Additional testwork and spatial variability investigations should be performed to enhance the understanding of this deposit, even though the mining plan indicate for Scanlan ore to only start in Year 7. There is no data available on the deeper sulphide portion of this deposit.

1.26.3 Project Environmental Authority (EA EPML00899613)

Both the MLs and the EA have been approved. Changes made to the mine layout in this feasibility study require a new amendment to the exiting EA. Amendments are assessed to determine whether they are classified as Minor or Major. The extent of the new mine footprint, increased processing throughputs, adjustments to the waste dump, plant areas, TSF, Cabbage Tree Creek water well field, and road routes, and inclusion of the Blackard and Scanlan deposits to the mine plan will require submission of a Major Amendment Application to the existing EA. From the date of application submission, the Minor Amendment process takes up to 35 days, while the time for a Major Amendment can vary. The 2016 Major Amendment by Altona took 3.5 months from the date of application submission.