



ACN. 000 317 251

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**MARKET RELEASE**

**11<sup>th</sup> December 2015**

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**ROCKLANDS GROUP COPPER PROJECT (CDU 100%)**

## **ROCKLANDS MAIDEN ORE RESERVE ESTIMATE**

Cloncurry mining company CuDeco Limited (ASX:CDU) (CuDeco) is pleased to announce a maiden Ore Reserve Estimate for its 100% owned Rocklands Group Copper Project which underpins the project's planned, Stage-1, 10-year operation.

**Total Ore Reserve: 28Mt @ 0.9% Spec\_CuEq**

(0.71% Cu, 0.14g/t Au, 357ppm Co, 6.7% Mag)

comprising

**Proved Ore Reserve: 23Mt @ 1.0% Spec\_CuEq**

(0.77% Cu, 0.15g/t Au, 382ppm Co, 7.1% Mag)

and

**Probable Ore Reserve: 5Mt @ 0.6% Spec\_CuEq**

(0.45% Cu, 0.11g/t Au, 232ppm Co, 5.0% Mag)

Within the Ore Reserve

**High-grade Ore Reserve: 10Mt @ 1.61% Spec\_CuEq**

(1.39% Cu, 0.24g/t Au, 504ppm Co, 6.6% Mag)

**Low-grade Ore Reserve: 17Mt @ 0.48% Spec\_CuEq**

(0.31% Cu, 0.08g/t Au, 269ppm Co, 6.8% Mag)

The Maiden Ore Reserve Estimate was prepared by Australian Mine Design and Development (AMDAD), and is based on the November 2013 Mineral Resource Estimate for Rocklands prepared by Mining Associates Pty Ltd. The Ore Reserve is based on the Stage-1, 10-year mine plan also prepared by Australian Mine Design and Development (AMDAD), as part of the 2015 Rocklands Feasibility Study that is set to be released shortly.

The Rocklands Ore Reserve Estimate has been finalised as part of a Feasibility Study of the Rocklands Project currently being prepared by CuDeco and its consultants. The Feasibility Study covers resource estimation, mining, processing, marketing, environment, community and financial modelling. The Feasibility Study indicates that the project is technically and economically viable for the metal prices assumed.

Mining operations commenced at the Rocklands Project in 2012. The Las Minerale Stage 1 open pit is completed, Las Minerale Stage 2 has been mined down approximately 45m below surface to 180mRL, the Las Mineral Final Stage has been mined down to 215mRL, Rocklands South has been cleared and grubbed to the final pit limit with some surface mining to 5m depth, Southern Rocklands Extended pit has been mined down to 208mRL, approximately 12m below surface. Most of the parameters adopted for the mine plan are based on Rocklands mining operations experience to-date, including projected life of mine mining costs of \$3.20 per tonne. Ore mined to-date of 2.2 Mt has been stockpiled ready for process plant commissioning. Construction of the processing plant and general site infrastructure is nearing completion.

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Commenting on the Reserve Estimate, CuDeco Managing Director Peter Hutchison said: “In the absence of a Reserve Estimate, in-house modelling has been used for mine planning and financial modelling. The Reserve Estimate provides confirmation that not only was this in-house modelling accurate, but remarkably so given it was initially prepared some three years ago in a very different economic environment. We now have increased confidence in the project’s economics to support planned mining and processing at Rocklands.”

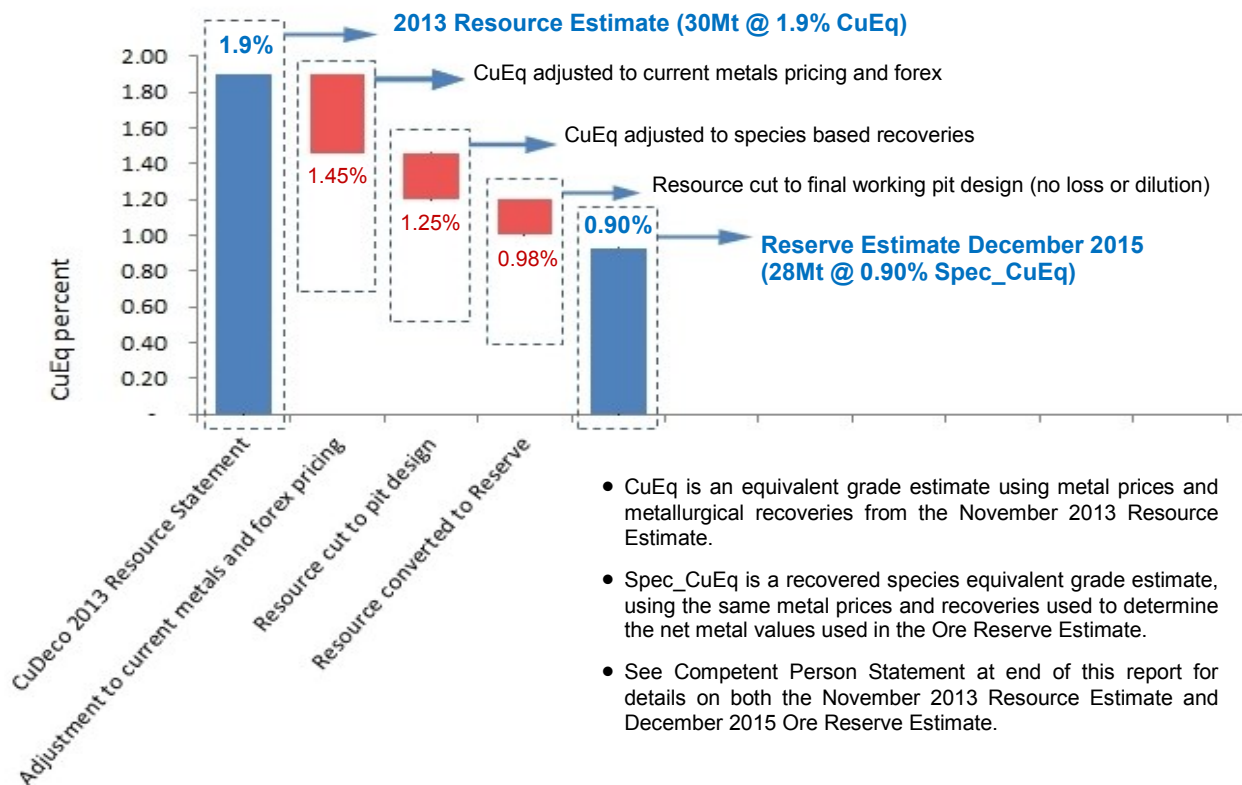
CuDeco’s interim Independent Non-Executive Chairman, David Taylor said: “The Reserve Estimate is a significant milestone in the development of Rocklands, providing further evidence of the project’s viability despite the challenging economic conditions faced by the mining industry at present. The release of the Reserve Estimate will underpin operations going forward and also reflects on the greater level of transparency being adopted by the new management of CuDeco.

“The recent strengthening of the Rocklands leadership team, the attraction of significant new investment and the upcoming completion of the project’s Feasibility Study demonstrate the Board and management’s success in progressing our flagship project. Based on the strong interest in the Rights Issue, we are ticking all the boxes for investors as we work towards unlocking significant revenue for the benefit of all shareholders.”

### Reserve Estimate Highlights

- **Ore Reserve includes Proved Stockpiled ore of 2.2Mt @ 1.34% Spec\_CuEq**  
(1.02% Cu, 670ppm Co, 0.19g/t Au, 6.6% magnetite)
- **252,000 tonnes of contained copper metal equivalent**  
(199,000 tonnes of copper, 126,000 ounces of gold, 10,000 tonnes of cobalt and 1.9Mt tonnes of magnetite)
- **Strip ratio of 4.0:1**

### Comparison of November 2013 Resource Estimate to December 2015 Ore Reserve Estimate



## Feasibility Study

The Rocklands Ore Reserve Estimate has been finalised as part of a Feasibility Study of the Rocklands Project currently being prepared by CuDeco and its consultants. The Study covers the following topics – Geology, Resource Estimation, Reserves, Geotechnical, Mine Development, Infrastructure, Equipment Selection, Mine Operations, Access and Transport, Power, Water Balance, Site Earth Works, Built Infrastructure, Metallurgy and Testwork, Processing, Tailings Storage, Environmental, Operations Management Plan, Implementation Plan, Capital and Operating Costs, Cost to Completion, Implementation and Operations Management Plan, Owners Matters and Risks.

The Plan of Operations currently in-place by CuDeco for ML permitting and approved by the Queensland Government has been used as the basis for the Feasibility Study. This envisages a smaller, higher grade open pit only mining operation for 8 years with copper production via processing 3Mtpa over a 10 year life, the last 2 years being from stockpiles. Magnetite and low-grade copper material would be stockpiled separately for possible future use. Production of additional material from underground at higher grades is possible but is not being considered at present so is not included in the Feasibility Study or current reserves.

The Feasibility Study indicates that the project is technically and economically viable for the metal prices assumed. Mining operations commenced at the Rocklands Project in 2012. The Las Minerale Stage 1 open pit is completed, Las Minerale Stage 2 has been mined down approximately 45m below surface to 180mRL, the Las Mineral Final Stage has been mined down to 215mRL, Rocklands South has been cleared and grubbed to the final pit limit with some surface mining to 5m depth, Southern Rocklands Extended pit has been mined down to 208mRL, approximately 12m below surface. Most of the parameters adopted for the mine plan are based on Rocklands mining operations experience to-date. Ore mined to-date of 2.2 Mt has been stockpiled ready for process plant commissioning. Construction of the processing plant and general site infrastructure is nearing completion.

Details of factors considered in Ore Reserve Estimates section of the Feasibility Study are included in the enclosed report by AMDAD and JORC Table 1 Section 4 (attached) and summarised below.

Parameter	Value	Parameter	Value
Mining Dilution	0.5m skin	<b>Processing Costs (gravity and floatation)</b>	
Dilution grade	Adjacent block	Crush (A\$/t ore)	1.16
Mining Recovery	95%	Grind (A\$/t ore)	4.43
Mining rate limit (Mt per quarter)	Commences at 2.7Mt per quarter and increases to 5Mt	Process (A\$/t ore)	6.54
Processing rate limit (Mtpa)	3Mtp from period 3	Tails (A\$/t ore)	0.68
<b>Processing Recovery</b>		Total (A\$/t ore)	<b>12.81</b>
Chalcocite fresh	90%	<b>Metal Prices (AUD)</b>	
Chalcopyrite fresh	95%	Copper A\$/lb	3.20
Native Copper fresh	95%	Cobalt A\$/lb	18
Oxides	65%	Gold A\$/oz	1,200
Cobalt fresh	90%	Magnetite A\$/t	140
Gold	95%	<b>Other factors</b>	
Magnetite	80%	Discount Rate	7%
<b>Ore and Waste Volumes</b>		General and Admin	A\$6.3M per annum
Ore	10 M bcm	Royalties	A\$2.81/t milled
Waste	39.9 M bcm	Concentrate Transport	A\$5.21/t milled
<b>Mining Costs</b>		TC/RC	A\$9.94/t milled
Mining Costs (A\$/t)	\$2.50 at 225mRL, plus 10c for each 10m increment = average LoM \$3.20/t	Working Capital	A\$2.33/t milled

## Ore Reserves Summary

The Ore Reserve Estimate is summarised in Table 1 and broken down by mill feed types. Open pit operations at Rocklands commenced in late 2012 and this Ore Reserve Estimate includes stockpiled ore up to the end of June 2015 and ore remaining in the designed open pits after this date. Proved ore includes stockpiled material. A breakdown of Proved ore by stockpiled ore and ore remaining in the pits is summarised in Table 2. Total waste and ore volume are summarised in Table 3. A further breakdown of ore by high grade and low grade categories is summarised in Table 4.

**Table 1 Rocklands Group Copper Project Ore Reserves**

Reserve Category	Ore Type	Million Tonnes	% Copper	ppm Cobalt	g/t Gold	% Magnetite	% Spec_CuEq
Proved	OX	1.1	0.89	305	0.16	3.1	0.76
	NC_OX	0.3	1.65	736	0.23	1.9	1.55
	NC_CC	1.8	1.81	766	0.24	2.6	1.88
	NC_CPY	2.0	0.93	617	0.15	3.8	1.16
	CC	0.3	0.82	311	0.18	3.5	0.91
	CPY	13.8	0.72	343	0.15	9.9	1.00
	BG	3.7	0.26	213	0.07	2.2	0.29
	<b>Total</b>	<b>23</b>	<b>0.77</b>	<b>382</b>	<b>0.15</b>	<b>7.1</b>	<b>0.97</b>
Probable	OX	0.02	0.58	404	0.06	3.7	0.52
	NC_OX	0.1	1.09	316	0.15	1.5	1.01
	NC_CC	0.4	0.78	313	0.10	2.7	0.84
	NC_CPY	0.5	0.66	267	0.11	2.9	0.74
	CC	0.1	0.47	266	0.11	2.8	0.53
	CPY	2.7	0.40	221	0.13	7.0	0.61
	BG	0.9	0.26	199	0.05	2.0	0.29
	<b>Total</b>	<b>5</b>	<b>0.45</b>	<b>232</b>	<b>0.11</b>	<b>5.0</b>	<b>0.58</b>
Proved and Probable	OX	1.1	0.88	307	0.16	3.1	0.75
	NC_OX	0.3	1.55	664	0.21	1.9	1.46
	NC_CC	2.2	1.61	678	0.21	2.6	1.67
	NC_CPY	2.5	0.88	548	0.14	3.6	1.08
	CC	0.4	0.75	302	0.17	3.4	0.83
	CPY	16.5	0.67	323	0.15	9.4	0.94
	BG	4.6	0.26	210	0.06	2.2	0.29
	<b>Total</b>	<b>28</b>	<b>0.71</b>	<b>357</b>	<b>0.14</b>	<b>6.7</b>	<b>0.90</b>

**Table 2 Rocklands Breakdown of Proved Reserves**

Reserve Category	Ore Type	Million Tonnes	% Copper	ppm Cobalt	g/t Gold	% Magnetite	% Spec_CuEq
Unmined Proved	OX	0.8	0.81	236	0.16	3.0	0.68
	NC_OX	0.1	1.62	639	0.24	2.0	1.59
	NC_CC	1.0	2.13	797	0.27	2.6	2.22
	NC_CPY	2.0	0.92	617	0.14	3.8	1.15
	CC	0.3	0.87	296	0.19	3.3	0.96
	CPY	13.4	0.71	339	0.15	10.1	1.00
	BG	3.1	0.26	212	0.07	2.2	0.30
	<b>Total</b>	<b>20.8</b>	<b>0.74</b>	<b>366</b>	<b>0.14</b>	<b>7.5</b>	<b>0.96</b>
Stockpiled Proved	OX	0.2	1.14	549	0.17	3.6	1.03
	NC_OX	0.1	1.68	823	0.21	1.9	1.51
	NC_CC	0.8	1.41	726	0.21	2.6	1.43
	NC_CPY	0.1	1.28	610	0.23	4.0	1.38
	CC	0.0	0.55	406	0.09	4.7	0.58
	CPY	0.4	1.12	494	0.20	3.1	1.16
	BG	0.6	0.24	220	0.05	2.2	0.26
	<b>Total</b>	<b>2.2</b>	<b>1.02</b>	<b>533</b>	<b>0.16</b>	<b>2.7</b>	<b>1.02</b>
Total Proved	OX	1.1	0.89	305	0.16	3.1	0.76
	NC_OX	0.3	1.65	736	0.23	1.9	1.55
	NC_CC	1.8	1.81	766	0.24	2.6	1.88
	NC_CPY	2.0	0.93	617	0.15	3.8	1.16
	CC	0.3	0.82	311	0.18	3.5	0.91
	CPY	13.8	0.72	343	0.15	9.9	1.00
	BG	3.7	0.26	213	0.07	2.2	0.29
	<b>Total</b>	<b>23</b>	<b>0.77</b>	<b>382</b>	<b>0.15</b>	<b>7.1</b>	<b>0.97</b>

**Table 3 Total Ore and Waste Volumes**

Pit Volumes	Million BCM
Ore	10.0
Waste Rock	39.9
Total	49.9
Waste:Ore bcm:bcm	4.0

**Table 4 Breakdown of High Grade and Low Grade Ore**

Reserve Category	Ore Type	Million Tonnes	% Copper	ppm Cobalt	g/t Gold	% Magnetite	% Spec_CuEq
High Grade (>0.5%Cu)	OX	0.4	1.26	331	0.20	2.0	1.01
	NC_OX	0.3	1.65	675	0.22	1.7	1.55
	NC_CC	1.5	2.20	756	0.28	2.4	2.22
	NC_CPY	1.1	1.47	613	0.21	3.9	1.69
	CC	0.2	1.22	318	0.26	3.4	1.30
	CPY	6.9	1.20	439	0.23	8.6	1.51
	BG	-	-	-	-	-	-
	Total	10.4	1.39	504	0.24	6.6	1.61
Low Grade	OX	0.68	0.65	292	0.14	3.8	0.60
	NC_OX	0.0	0.56	550	0.11	3.1	0.51
	NC_CC	0.8	0.51	532	0.09	2.9	0.64
	NC_CPY	1.4	0.40	495	0.08	3.4	0.58
	CC	0.2	0.32	287	0.08	3.3	0.40
	CPY	9.6	0.28	240	0.09	10.0	0.53
	BG	4.6	0.26	210	0.06	2.2	0.29
	Total	17.4	0.31	269	0.08	6.8	0.48
Total Ore	OX	1.1	0.88	307	0.16	3.1	0.75
	NC_OX	0.3	1.55	664	0.21	1.9	1.46
	NC_CC	2.2	1.61	678	0.21	2.6	1.67
	NC_CPY	2.5	0.88	548	0.14	3.6	1.08
	CC	0.4	0.75	302	0.17	3.4	0.83
	CPY	16.5	0.67	323	0.15	9.4	0.94
	BG	4.6	0.26	210	0.06	2.2	0.29
	Total	28	0.71	357	0.14	6.7	0.90

**Notes:**

- The tonnes and grades shown in the totals rows are stated to a number of significant figures reflecting the confidence of the estimate. However the significant figures of the tonnes and grades for the individual ore types are not intended to reflect the confidence of the estimate for each ore type. The table may nevertheless show apparent inconsistencies between the sum of components and the corresponding rounded totals.

**Glossary of mill types:**

- OX – oxide ore
- NC\_OX – oxide copper plus native copper
- NC\_CC – chalcocite plus native copper
- NC\_CPY – chalcopyrite plus native copper
- CC – chalcocite ore
- CPY – chalcopyrite ore
- BG – blend grade below 0.3% Spec\_CuEq

- The estimate is based on a net metal value cut-off and a minimum copper (Cu) grade of 0.1%. Any material with a net value greater than zero, (i.e. revenue from metal is greater than all treatment and selling costs), is classified as ore. The net metal value has been determined by the following prices and recoveries along with a processing cost of A\$12.81 per tonne of ore:

**Table 6 Recoveries and Prices Used in the Net Metal Value Calculation**

Metal	Cu Species	Recovery	Net Price
Copper	Bornite	92%	A\$3.20/lb
	Chalcocite	90%	
	Chalcopyrite	95%	
	Native Copper	95%	
	Malachite & Azurite	65%	
	Other oxides	65%	
Cobalt		Variable	A\$18.00/lb
Gold		75%	A\$1200/oz
Magnetite		80%	A\$140/t (DMS magnetite)

- CuDeco defined the Spec\_CuEq formula, which is a recovered grade, using the same metal prices and recoveries used to determine the net metal value.

Note, Cobalt recovery is related to pyrite content and does not exceed 90%

CuDeco defines Spec\_CuEq% as:

$$\begin{aligned} & \sum [(Copper\ species\%) \times (species\ copper\ content) \times (species\ copper\ recovery)] \\ & + (ppm\ cobalt) \times (cobalt\ recovery) \times (net\ cobalt\ price) / (net\ copper\ price) \\ & + (g/t\ gold) \times (gold\ recovery) \times (net\ gold\ price) / (net\ copper\ price) \\ & + \text{if}[\%magnetite < 2, 0, (\%magnetite - 2) \times (magnetite\ recovery) \times (net\ magnetite\ price) / (net\ copper\ price)] \end{aligned}$$

**Key contributors to the Reserve Estimate include:**

- Australian Mine Design and Development Pty Ltd (Reserve Estimate, Pit Optimisation, Mine Design, and Scheduling)
- ATC Williams Pty Ltd (Tailings storage facility (TSF) design, construction schedule, TSF costs, and TSF water management)
- Mining Associates Pty Ltd (Mineral Resources)
- Pells Sullivan Meynink (Pit wall design guidelines)
- CuDeco (Ore processing costs, general site operating costs, metallurgical recoveries and metal prices)

On behalf of the Board.

-ends



Measured Rocklands Resource November 2013 at various cut-off grades										
cut-off	Tonnes	Estimated Grade				Copper Equivalents		Contained Metal & Equivalent		
CuCoAu*		Cu	Co	Au	Mag	CuCoAu*	CuEq*	Cu	CuCoAu*	CuEq*
%	Mt	%	ppm	ppm	%	%	%	Mlb	Mlb	Mlb
0.20	83	0.36	273	0.09	6.4	0.74	1.0	669	1,369	1,787
0.40	44	0.63	355	0.13	5.6	1.13	1.3	614	1,108	1,300
0.80	19	1.23	504	0.22	5.8	1.96	2.2	506	809	894
Indicated Rocklands Resource November 2013 at various cut-off grades										
cut-off	Tonnes	Estimated Grade				Copper Equivalents		Contained Metal & Equivalent		
CuCoAu*		Cu	Co	Au	Mag	CuCoAu*	CuEq*	Cu	CuCoAu*	CuEq*
%	Mt	%	ppm	ppm	%	%	%	Mlb	Mlb	Mlb
0.20	98	0.16	226	0.07	6.5	0.47	0.7	339	1,021	1,518
0.40	40	0.32	287	0.13	4.1	0.74	0.9	282	652	779
0.80	11	0.68	405	0.19	3.0	1.28	1.4	170	319	346
Total Measured and Indicated Rocklands Resource November 2013 at various cut-off grades										
cut-off	Tonnes	Estimated Grade				Copper Equivalents		Contained Metal & Equivalent		
CuCoAu*		Cu	Co	Au	Mag	CuCoAu*	CuEq*	Cu	CuCoAu*	CuEq*
%	Mt	%	ppm	ppm	%	%	%	Mlb	Mlb	Mlb
0.20	181	0.25	248	0.08	6.5	0.60	0.8	1,008	2,390	3,306
0.40	84	0.48	323	0.13	4.9	0.95	1.1	896	1,759	2,079
0.80	30	1.02	467	0.21	4.8	1.71	1.9	676	1,128	1,240
Inferred Rocklands Resource November 2013 at various cut-off grades										
cut-off	Tonnes	Estimated Grade				Copper Equivalents		Contained Metal & Equivalent		
CuCoAu*		Cu	Co	Au	Mag	CuCoAu*	CuEq*	Cu	CuCoAu*	CuEq*
%	Mt	%	ppm	ppm	%	%	%	Mlb	Mlb	Mlb
0.20	91	0.06	146	0.09	4.6	0.3	0.4	117	573	902
0.40	12	0.24	200	0.10	2.6	0.5	0.6	63	142	166
0.80	0.5	0.54	413	0.12	3.2	1.1	1.2	6	12	13
Total Resource Rocklands Resource November 2013 at various cut-off grades										
cut-off	Tonnes	Estimated Grade				Copper Equivalents		Contained Metal & Equivalent		
CuCoAu*		Cu	Co	Au	Mag	CuCoAu*	CuEq*	Cu	CuCoAu*	CuEq*
%	Mt	%	ppm	ppm	%	%	%	Mlb	Mlb	Mlb
0.20	272	0.19	214	0.08	5.9	0.5	0.7	1,125	2,962	4,208
0.40	96	0.45	308	0.13	4.6	0.9	1.1	959	1,902	2,244
0.80	30	1.01	466	0.21	4.8	1.7	1.9	681	1,140	1,253

Additional Magnetite only Inferred Resource Rocklands Resource November 2013 at various cut-off grades						
cut-off	Tonnes	Estimated Grade				Contained Magnetite
Magnetite		Cu	Co	Au	Mag	
%	Mt	%	ppm	ppm	%	Mt
10	328	0.02	70	0.01	14.3	47
15	102	0.02	78	0.01	19.5	20
20	26	0.01	77	0.00	26.6	7

Note - Figures have been rounded to reflect level of accuracy of the estimates

\*Copper equivalent CuCoAu% = Cu % + Co ppm\*0.001232 + Au ppm\*0.518238

\*Copper equivalent CuEq% = Cu % + Co ppm \*0.001232 + Au ppm \*0.518238 + magnetite %\*0.035342

This information is extracted from the report entitled "Rocklands Resource Update 2013" created on 29 November 2013 and is available to view on [www.cudeco.com.au](http://www.cudeco.com.au). The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.



“The information in this release that relates to Ore Reserves is based on information compiled by Mr John Wyche, who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Wyche is employed by Australian Mine Design and Development Pty Ltd. Mr Wyche has sufficient experience which is relevant to the style of mineralisation, type of deposit and method of mining under consideration and to the activity which he is undertaking 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 Wyche consents to the inclusion in this release of the matters based on his information in the form and context in which it appears.”

**Table 1 Rocklands Group Copper Project Ore Reserves**

Reserve Category	Ore Type	Million Tonnes	% Copper	ppm Cobalt	g/t Gold	% Magnetite	% Spec_CuEq
Proved	OX	1.1	0.89	305	0.16	3.1	0.76
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	NC_CC	1.8	1.81	766	0.24	2.6	1.88
	NC_CPY	2.0	0.93	617	0.15	3.8	1.16
	CC	0.3	0.82	311	0.18	3.5	0.91
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	NC_OX	0.3	1.55	664	0.21	1.9	1.46
	NC_CC	2.2	1.61	678	0.21	2.6	1.67
	NC_CPY	2.5	0.88	548	0.14	3.6	1.08
	CC	0.4	0.75	302	0.17	3.4	0.83
	CPY	16.5	0.67	323	0.15	9.4	0.94
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# **AUSTRALIAN MINE DESIGN AND DEVELOPMENT PTY LTD**

**A.B.N. 16 010 977 330**

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## **Competent Person's Consent Form**

Pursuant to the requirements of ASX Listing Rules 5.6, 5.22 and 5.24 and Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

### **Report name**

Ore Reserves Statement

Rocklands Group Copper Project, Australia

*(Insert name or heading of Report to be publicly released) ('Report')*

CuDeco Ltd

*(Insert name of company releasing the Report)*

Rocklands Group Copper Project

*(Insert name of the deposit to which the Report refers)*

If there is insufficient space, complete the following sheet and sign it in the same manner as this original sheet.

9<sup>th</sup> December 2015

*(Date of Report)*

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Office:	Brisbane		Sydney	
Address:	PO Box 15366	Level 4	PO Box 381	Suite 14
	City East QLD 4002	46 Edward Street	Rozelle NSW 2039	340 Darling Street
		Brisbane QLD 4000		Balmain NSW 2041
Telephone:	61 7 3012 9256		61 2 9555 5309	
Facsimile:	61 7 3012 9284		61 2 9810 1329	
Email:	Chris.desoe@amdad.com.au		John.wyche@amdad.com.au	

Statement

I/We,

John Wyche

---

*(Insert full name(s))*

confirm that I am the Competent Person for the Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having five years experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Member or Fellow of *The Australasian Institute of Mining and Metallurgy* or the *Australian Institute of Geoscientists* or a 'Recognised Professional Organisation' (RPO) included in a list promulgated by ASX from time to time.
- I have reviewed the Report to which this Consent Statement applies.

I am a full time employee of

---

*(Insert company name)*

Or

I/We am a consultant working for

Australian Mine Design and Development Pty Ltd

---

*(Insert company name)*

and have been engaged by

CuDeco Ltd

---

*(Insert company name)*

to prepare the documentation for

Rocklands Group Copper Project

---

*(Insert deposit name)*

on which the Report is based, for the period ended

9<sup>th</sup> December 2015

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*(Insert date of Resource/Reserve statement)*

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

I verify that the Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to ~~Exploration Targets, Exploration Results, Mineral Resources and/or Ore Reserves~~ *(select as appropriate)*.

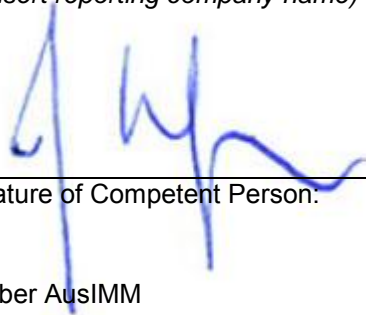
Consent

I consent to the release of the Report and this Consent Statement by the directors of:

CuDeco Ltd

*(Insert reporting company name)*

---



9<sup>th</sup> December 2015

Signature of Competent Person:

Date:

Member AusIMM

104076

Professional Membership:  
*(insert organisation name)*

Membership Number:

Signature of Witness:

Print Witness Name and Residence:  
(eg town/suburb)

Additional deposits covered by the Report for which the Competent Person signing this form is accepting responsibility:

Not applicable

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Additional Reports related to the deposit for which the Competent Person signing this form is accepting responsibility:

Not applicable

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Signature of Competent Person:

---

Date:

---

Professional Membership:  
*(insert organisation name)*

---

Membership Number:

---

Signature of Witness:

---

Print Witness Name and Residence:  
(eg town/suburb)



# Ore Reserves Statement

## Rocklands Group Copper Project, Australia



Prepared by Australian Mine Design and Development Pty Ltd  
for  
CuDeco Limited

Authors: John Wyche, Peter Allen and Chris Desoe - AMDAD

Effective Date: 9 December 2015  
Submitted Date: 9<sup>th</sup> December 2015  
Reference: MA1531

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## **1 ORE RESERVE ESTIMATES**

### **1.1 INTRODUCTION**

Australian Mine Design and Development Pty Ltd (AMDAD) prepared a mine plan for the Rocklands Group Copper Project, in conjunction with the 2015 Rocklands Feasibility Study. The Mining Section of the Feasibility Study details the key parameters, methodologies and assumptions used in the preparation of the mine plan and generation of the December 2015 Ore Reserve Estimate for Rocklands.

Key project inputs provided to AMDAD for the mine plan include:-

- The resource model prepared by Mining Associates Pty Ltd (MAPL) in November 2013,
- Pit wall design guidelines by Pells Sullivan Meynink (PSM),
- Ore processing costs, general site operating costs, metallurgical recoveries and metal prices provided by CuDeco.

The work completed by AMDAD to prepare the mine plan included:-

- Pit Optimisation,
- Mine Design, and
- Scheduling.

### **1.2 ORE RESERVES STATEMENT**

#### **1.2.1 Scope**

The December 2015 Rocklands Ore Reserves Estimate was prepared for CuDeco Limited (CuDeco) by AMDAD. It deals with the resources for the Rocklands copper deposit in NW Queensland, Australia, that underpins the Rocklands Project. All of the reserves are for extraction by open pit mining. The Rocklands Project is held 100% by CuDeco.

This Ore Reserves Estimate is based on the November 2013 Mineral Resource Estimate for Rocklands prepared MAPL and the mine plan prepared by AMDAD as part of the 2015 Rocklands Feasibility Study.

#### **1.2.2 Ore Reserves Summary**

The Ore Reserve Estimate is summarised in Table 1 and broken down by mill feed types.

Open pit operations at Rocklands commenced in late 2012 and this Ore Reserve Estimate includes stockpiled ore up to the end of June 2015 and ore remaining in the designed open pits after this date. Proved ore includes stockpiled material. A breakdown of Proved ore by stockpiled ore and ore remaining in the pits is summarised in Table 2. Total waste and ore volume are summarised in Table 3. A further breakdown of ore by high grade and low grade categories is summarised in Table 4.





**Table 1 Rocklands Group Copper Project Ore Reserves**

Reserve Category	Ore Type	Million Tonnes	% Copper	ppm Cobalt	g/t Gold	% Magnetite	% CuEq
Proved	OX	1.1	0.89	305	0.16	3.1	0.76
	NC_OX	0.3	1.65	736	0.23	1.9	1.55
	NC_CC	1.8	1.81	766	0.24	2.6	1.88
	NC_CPY	2.0	0.93	617	0.15	3.8	1.16
	CC	0.3	0.82	311	0.18	3.5	0.91
	CPY	13.8	0.72	343	0.15	9.9	1.00
	BG	3.7	0.26	213	0.07	2.2	0.29
	Total	23	0.77	382	0.15	7.1	0.97
Probable	OX	0.02	0.58	404	0.06	3.7	0.52
	NC_OX	0.1	1.09	316	0.15	1.5	1.01
	NC_CC	0.4	0.78	313	0.10	2.7	0.84
	NC_CPY	0.5	0.66	267	0.11	2.9	0.74
	CC	0.1	0.47	266	0.11	2.8	0.53
	CPY	2.7	0.40	221	0.13	7.0	0.61
	BG	0.9	0.26	199	0.05	2.0	0.29
	Total	5	0.45	232	0.11	5.0	0.58
Proved and Probable	OX	1.1	0.88	307	0.16	3.1	0.75
	NC_OX	0.3	1.55	664	0.21	1.9	1.46
	NC_CC	2.2	1.61	678	0.21	2.6	1.67
	NC_CPY	2.5	0.88	548	0.14	3.6	1.08
	CC	0.4	0.75	302	0.17	3.4	0.83
	CPY	16.5	0.67	323	0.15	9.4	0.94
	BG	4.6	0.26	210	0.06	2.2	0.29
	Total	28	0.71	357	0.14	6.7	0.90



**Table 2 Rocklands Breakdown of Proved Reserves**

Reserve Category	Ore Type	Million Tonnes	% Copper	ppm Cobalt	g/t Gold	% Magnetite	% CuEq
Unmined Proved	OX	0.8	0.81	236	0.16	3.0	0.68
	NC_OX	0.1	1.62	639	0.24	2.0	1.59
	NC_CC	1.0	2.13	797	0.27	2.6	2.22
	NC_CPY	2.0	0.92	617	0.14	3.8	1.15
	CC	0.3	0.87	296	0.19	3.3	0.96
	CPY	13.4	0.71	339	0.15	10.1	1.00
	BG	3.1	0.26	212	0.07	2.2	0.30
	Total	20.8	0.74	366	0.14	7.5	0.96
Stockpiled Proved	OX	0.2	1.14	549	0.17	3.6	1.03
	NC_OX	0.1	1.68	823	0.21	1.9	1.51
	NC_CC	0.8	1.41	726	0.21	2.6	1.43
	NC_CPY	0.1	1.28	610	0.23	4.0	1.38
	CC	0.0	0.55	406	0.09	4.7	0.58
	CPY	0.4	1.12	494	0.20	3.1	1.16
	BG	0.6	0.24	220	0.05	2.2	0.26
	Total	2.2	1.02	533	0.16	2.7	1.02
Total Proved	OX	1.1	0.89	305	0.16	3.1	0.76
	NC_OX	0.3	1.65	736	0.23	1.9	1.55
	NC_CC	1.8	1.81	766	0.24	2.6	1.88
	NC_CPY	2.0	0.93	617	0.15	3.8	1.16
	CC	0.3	0.82	311	0.18	3.5	0.91
	CPY	13.8	0.72	343	0.15	9.9	1.00
	BG	3.7	0.26	213	0.07	2.2	0.29
	Total	23	0.77	382	0.15	7.1	0.97

**Table 3 Total Ore and Waste Volumes**

Pit Volumes	Million BCM
Ore	10.0
Waste Rock	39.9
Total	49.9
Waste:Ore bcm:bcm	4.0



**Table 4 Breakdown of High Grade and Low Grade Ore**

Reserve Category	Ore Type	Million Tonnes	% Copper	ppm Cobalt	g/t Gold	% Magnetite	% CuEq
High Grade (>0.5%Cu)	OX	0.4	1.26	331	0.20	2.0	1.01
	NC_OX	0.3	1.65	675	0.22	1.7	1.55
	NC_CC	1.5	2.20	756	0.28	2.4	2.22
	NC_CPY	1.1	1.47	613	0.21	3.9	1.69
	CC	0.2	1.22	318	0.26	3.4	1.30
	CPY	6.9	1.20	439	0.23	8.6	1.51
	BG	-	-	-	-	-	-
	Total	10.4	1.39	504	0.24	6.6	1.61
Low Grade	OX	0.68	0.65	292	0.14	3.8	0.60
	NC_OX	0.0	0.56	550	0.11	3.1	0.51
	NC_CC	0.8	0.51	532	0.09	2.9	0.64
	NC_CPY	1.4	0.40	495	0.08	3.4	0.58
	CC	0.2	0.32	287	0.08	3.3	0.40
	CPY	9.6	0.28	240	0.09	10.0	0.53
	BG	4.6	0.26	210	0.06	2.2	0.29
	Total	17.4	0.31	269	0.08	6.8	0.48
Total Ore	OX	1.1	0.88	307	0.16	3.1	0.75
	NC_OX	0.3	1.55	664	0.21	1.9	1.46
	NC_CC	2.2	1.61	678	0.21	2.6	1.67
	NC_CPY	2.5	0.88	548	0.14	3.6	1.08
	CC	0.4	0.75	302	0.17	3.4	0.83
	CPY	16.5	0.67	323	0.15	9.4	0.94
	BG	4.6	0.26	210	0.06	2.2	0.29
	Total	28	0.71	357	0.14	6.7	0.90



Notes:

- The tonnes and grades shown in the totals rows are stated to a number of significant figures reflecting the confidence of the estimate. However the significant figures of the tonnes and grades for the individual ore types are not intended to reflect the confidence of the estimate for each ore type. The table may nevertheless show apparent inconsistencies between the sum of components and the corresponding rounded totals.
- Glossary of mill types:
  - OX – oxide ore
  - NC\_OX – oxide copper plus native copper
  - NC\_CC – chalcocite plus native copper
  - NC\_CPY – chalcopyrite plus native copper
  - CC – chalcocite ore
  - CPY – chalcopyrite ore
  - BG – blend grade below 0.3%CuEq
- The estimate is based on a net metal value cut-off and a minimum copper (Cu) grade of 0.1%. Any material with a net value greater than zero, i.e. revenue from metal is greater than all treatment and selling costs, is then as ore if it has a copper grade above 0.1%. The net metal value metal has been determined by the following prices and recoveries along with a processing cost of A\$12.81:

**Table 5 Recoveries and Prices Used in the Net Metal Value Calculation**

Metal	Cu Species	Recovery	Net Price
Copper	Bornite	92%	A\$3.20/lb
	Chalcocite	90%	
	Chalcopyrite	95%	
	Native Copper	95%	
	Malachite & Azurite	65%	
	Other oxides	65%	
Cobalt		Variable	A\$18.00/lb
Gold		75%	A\$1200/oz
Magnetite		80%	A\$140/t

- CuDeco defined the CuEq formula, which is a recovered grade, using the same metal prices and recoveries used to determine the net metal value.

Note, Cobalt recovery is related to pyrite content and does not exceed 90%

CuDeco defines CuEq% as:

$$\sum [(Copper\ species\%) \times (species\ copper\ content) \times (species\ copper\ recovery)] + (ppm\ cobalt) \times (cobalt\ recovery) \times (net\ cobalt\ price) / (net\ copper\ price)$$



+ (g/t gold) x (gold recovery) x (net gold price) / (net copper price)

+ if[%magnetite<2,0,(%magnetite – 2) x (magnetite recovery) x (net magnetite price)/(net copper price)]

### 1.2.3 Contributing Persons

The Ore Reserve Estimate prepared by AMDAD was supported by contributions from the persons listed in Table 6.

### 1.2.4 Accord with JORC Code

This Ore Reserves Statement has been prepared in accordance with the guidelines of the Australasian Code for the Reporting of Resources and Reserves 2012 Edition (the JORC Code).

The Competent Person signing off on the overall Ore Reserves Estimate is Mr John Wyche, of Australian Mine Design and Development Pty Ltd, who has 32 years of relevant experience in operations and consulting for open pit metalliferous mines.



**Table 6 Contributing Experts**

Expert Person/Company	Area of Expertise	References
Andrew Vigar (MAPL)	Rocklands geological modelling, resource modelling, resource estimate, modelling of internal dilution in the resource model.	November 2013 Rocklands resource model rocklands_meas_gda.mdl, in Surpac block model format, provided to AMDAD by Mining Associates Pty Ltd.
Guy Grocott (Pells Sullivan Meynink Ltd)	Open pit wall design parameters for Rocklands.	Pells Sullivan Meynink , 2014: Rocklands Group Copper Project: Geotechnical Review of Pit Slope Designs. Consultant's report prepared for CuDeco Ltd, reference PSM1678-027R dated August 2014.
Ryan Kemp (CuDeco)	Open pit mining methods and equipment.	Rocklands Group Copper Project Feasibility Study Section 16: Mine Methods, November 2015, Compiled by Mining Associates Pty Ltd. <a href="#">Section 16.pdf</a>
John Wyche (AMDAD)	Overall sign-off of Ore Reserves	Rocklands Group Copper Project Feasibility Study Section 15: Ore Reserve Estimate, November 2015, Compiled by Mining Associates Pty Ltd.
Peter Allen (AMDAD)	Whittle pit optimisation, pit stage designs, dilution/loss, Ore Reserves estimation. Life of Mine schedule.	Rocklands Group Copper Project Feasibility Study Section 15: Ore Reserve Estimate, Appendix 1, November 2015, Compiled by Mining Associates Pty Ltd, <a href="#">1713AMD20151116_R3_Final_Mining_Report_AMDAD_standalone.pdf</a>
Ralph Holding (ATC Williams)	Tailings storage facility (TSF) design, construction schedule, TSF costs, and TSF water management.	
Aaron Day (Cudeco)	Site hydrological assessment and mine water management.	
Maree Arnold (CuDeco)	Environmental and social impacts and management plans, and closure requirements.	Rocklands Group Copper Project Feasibility study section 20: Environmental studies, permitting and community impact
Peter Hutchinson (CuDeco)	Rocklands process performance predictions including metal recoveries, processing rate, tailings characteristics, processing, general and administration operating costs, process design, project capital costs, and cutoff grades.	Process performance predictions for 3.0Mtpa process plant for Rocklands including metal recoveries, processing operating costs contained in <a href="#">Metallurgy Summary 20110524 Final.pdf</a> and related documents.
Aaron Day (Cudeco)	Site infrastructure design and estimates and logistics aspects.	Site infrastructure design files in dwg and pdf format. <a href="#">Site Infrastructure Locality Map.jpg</a>



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David Wilson (CuDeco)	Ground surface model	Ground surface model:- aerial_data_Double_oxide.str.
Steve Jackson (CuDeco)	General project economics. Mine operating costs.	Financial modelling report, docx and spreadsheet results.



## JORC Code, 2012 Edition – Table 1

Notes on data relating to Rocklands Project Resource Estimates. Data provided by CuDECO Ltd and verified by MA.

### 1.1 JORC TABLE 1 - SECTION 1 - SAMPLING TECHNIQUES AND DATA

(Criteria in this section apply to all succeeding sections).

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>• Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>• Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>• Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>• In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>▪ The resource estimate is based on drill samples only, no surface samples were used.</li> <li>▪ Representative 1 metre samples were taken from ¼ (NQ, HQ) or ½ (NQ, BQ) diamond core. Reverse circulation (RC) and rotary air blast (RAB) drilling was used to obtain 1 m and 3 m samples respectively, from which 3 kg was used for sample analysis.</li> <li>▪ RAB samples were deemed to be unrepresentative and prone to bias and were not used for resource estimation purposes.</li> <li>▪ Only assay result results from recognised, independent assay laboratories were used for Resource estimation after QAQC was verified.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>▪ Diamond (DD) of NQ, PQ, HQ and BQ diameters with standard and triple tube sample recovery and reverse circulation (RC) with "through the bit" sample recovery data were used for geological interpretation and resource estimation.</li> <li>▪ Where high rates of water inflow were encountered, or for drill holes exceeding depth limits of RC drilling, DD tails were added to complete drilling.</li> <li>▪ Current practice is to use DD only in mineralised zones.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>• Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>• Measures taken to maximise sample recovery and ensure</li> </ul>	<ul style="list-style-type: none"> <li>▪ DD core recovery averaged 98% overall, and exceeded 80% in 96% of the meters drilled in the mineralised zone.</li> <li>▪ RC recovery was recorded as bag size estimate and bag weight for all samples</li> <li>▪ RC - In most cases when chip recovery was poor and sample became</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>representative nature of the samples.</i></p> <ul style="list-style-type: none"> <li>• <i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i></li> </ul>	<p>wet the hole was stopped and a diamond tail was added.</p> <ul style="list-style-type: none"> <li>▪ DD - Analysis of recovery results vs grade indicates no significant trend occurs indicating bias of grades due to diminished recovery and / or wetness of samples.</li> <li>▪ RC - Loss of native copper in the weathered portion of the mineralised zones at Las Minerale and Rocklands South was identified and could result in an underestimation of the copper grade when using RC drill data, in certain circumstances. In areas where native copper is prevalent, core samples were given preference for use in estimation.</li> </ul>
<p><i>Logging</i></p>	<ul style="list-style-type: none"> <li>• <i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ Drill samples were logged for lithology, mineralisation and alteration using a standardised logging system, including the recording of visually estimated volume percentages of major minerals.</li> <li>▪ Early (2006 to mid 2008) rock chip and core samples were logged on paper and data entry completed by a 3rd Party Contractor and Database administrator in 2008.</li> <li>▪ Since 2008, rock chip and core samples were logged on site directly into Microsoft Excel field data capture templates with self-validating drop down field lists.</li> <li>▪ Drill core was photographed after being logged by the geologist.</li> <li>▪ Drill core not used for bulk metallurgical testing and RC drill chips are stored at the Rocklands site.</li> </ul>
<p><i>Sub-sampling techniques and sample preparation</i></p>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ All DD core was orientated along the bottom of hole, where possible. A cut line was drawn 1 cm to the right of the core orientation line.</li> <li>▪ Core was cut with a diamond saw, ½ core was used for NQ and BQ analysis, ¼ core was used for HQ and PQ analysis to standardise the sample size per meter.</li> <li>▪ RC samples were split using a riffle splitter attached to the cyclone on the drill rig.</li> <li>▪ Sample intervals in DD and RC were 1 m down-hole in length unless the last portion of DD hole was part of a metre.</li> </ul> <p>SGS Minerals Townsville Sample Preparation:</p> <ul style="list-style-type: none"> <li>▪ All samples were dried. Drill core was placed through jaw crusher and crushed to approx. 8mm. RC chips and core were split if necessary to a sample of less than approximately 3.5kg.</li> <li>▪ Native copper samples were prepared by 2 methods. Grain size of native copper determined which method was used.: <ul style="list-style-type: none"> <li>○ Samples where native copper grain size was less than 2mm were disc ground to approximately 180µm. 500g was split and lightly pulverised for 30 seconds to approximately 100µm.</li> <li>○ Samples where native copper grain size was greater than 2mm were put through a roller crusher to approximately 3mm. Samples were sieved at 2mm with copper greater than 2mm hand picked out of sample. Material less than 2mm and residue above 2mm was disc ground to approximately 180µm. 500g was split from the sample and lightly pulverised for 30 seconds to approximately 100µm.</li> </ul> </li> <li>▪ All other sampled material not containing native copper was pulverised to a nominal 90% passing 75µm.</li> </ul> <p>AMDEL Bureau Veritas Mt Isa Sample Preparation</p> <ul style="list-style-type: none"> <li>▪ After receiving, checking and sorting samples were dried at 103°C for 6 hours.</li> <li>▪ Core samples were put through a jaw Crusher and crushed to approximately -10mm. Sample was split if sample weight over 3kg.</li> <li>▪ Rock chip samples weighing over 3kg were crushed with the use of a Boyde crusher and split with 3kg of material retained.</li> <li>▪ Samples were pulverised for 5 minutes in an LMS until 90% passed through -106µm. Sample was split with the remaining pulp put in storage.</li> </ul>

Criteria	JORC Code explanation	Commentary
<p><i>Quality of assay data and laboratory tests</i></p>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></li> <li>• <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ Prior to May 2011, Cu and Co grades were determined predominately by 3 acid digest with either a ICP-AES (Inductively-Coupled Plasma Atomic Emission Spectrometer) or AAS (Atomic absorption Spectrometer) determination (SGS methods, ICP22D, ICP40Q, AAS22D AAS23Q, AAS40G). Post May 2011, Cu and Co grades were determined predominantly by 2 acid digest by ICP-OES (Inductively Coupled Plasma Optical Emission Spectrometer) determination at AMDEL Mt Isa laboratory.</li> <li>▪ Prior to May 2011, Au grades were determined by 50g Fire Assay (at SGS Townsville method FAA505). Post May 2011, Au grades were determined by 40g Fire Assay (at AMDEL Adelaide and Mt Isa method FA1).</li> <li>▪ Prior to May 2011, calcium and sulphur grades were determined by ICP – AES, post May 2011, sulphur grades were determined by aqua regia digest by ICP-OES.</li> <li>▪ Magnetite grades were determined by measurements of magnetic susceptibility taken on samples, which were compared to Davis Tube test results to determine a non-linear regression. It is recognised that a low susceptibility portion of the magnetite does exist, and hence magnetite grades may be underestimated in certain locations, but no correction has been found reliable at this time. Additional clarification should be available after results of the current bulk-sample programme have been analysed.</li> <li>▪ All analyses were carried out at internationally recognised, independent assay laboratories SGS, ALS, Genalysis, and Amdel Bureau Veritas.</li> <li>▪ Quality assurance was provided by introduction of known certified standards, blanks and duplicate samples on a routine basis.</li> <li>▪ Assay results outside the optimal range for methods were re-analysed by appropriate methods. Copper assay results differ little between acid digest methods but cobalt assay results show a significant underestimation when analysed using the AAS. Using results from an extensive re-assaying programme to define a regression formula, AAS Co assays were corrected to an equivalent ICP grade for estimation purposes. This correction factor affected 39% of samples in mineralised zones.</li> <li>▪ Ore Research Pty Ltd certified copper and gold standards have been implemented as a part of QAQC procedures, as well as coarse and pulp blanks, and certified matrix matched copper-cobalt-gold standards. Performance for standards has been adequate, apart from a period of systematic laboratory error, where standards are suspected to have been only partially digested. In-house cobalt only standards are more variable in results than those of Ore Research copper and gold, which is attributed to the in-house origin. These were later replaced by the copper-cobalt-gold standards certified by Ore Research Pty Ltd.</li> <li>▪ Re-assay programmes of sample intervals analysed prior to QAQC implementation, and those of the systematic laboratory error period have shown correlations between re-assay and original results to be chiefly within the realm of analytical error, and as such, acceptable.</li> <li>▪ Field duplicates collected in three retrospective programmes were affected by weathering and cementing of samples, making assay comparison difficult. Recent duplicate samples, split and despatched with the originating drill hole, show good correlation within paired copper and cobalt results, although gold results are variable, which is attributed to coarse (&gt;75µm) gold mineralisation. Core sample duplicates were attempted, but were considered by CuDECO to be of little use as a measure of assay repeatability, due to local variation in mineralisation.</li> <li>▪ QAQC monitoring is an active and ongoing process on batch by batch basis by which unacceptable results are re-assayed as soon as practicable.</li> <li>▪ An issue was found with early AAS sample grades for cobalt and a large</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>number of these samples have been re-assayed for Co via ICP methods. Enough data exists to define a close correlation between ICP and AAS results such that the remaining AAS assays were corrected using a linear regression formula (<math>Co\_ppm\_ICP = 1.0764 * Co\_ppm\_AAS + 16.51</math>). This affects approximately 39% of Co analyses in mineralised zones.</p> <ul style="list-style-type: none"> <li>▪ A limited check assay program carried out in 2007 on 497 samples suggested that Cu may be understated by approximately 5%.</li> <li>▪ DTR analysis (Davis tube recovery), which indicates magnetite content, has been carried out on 538 samples. Non-linear correlations with magnetic susceptibility readings on pulp samples, core and RC chips were defined and have been used to derive calculated magnetite contents for estimation purposes. An extensive program of magnetic susceptibility and DTR measurements on pulp samples is currently underway, which is expected to further refine calculated magnetite content.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>• The verification of significant intersections by either independent or alternative company personnel.</li> <li>• The use of twinned holes.</li> <li>• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>• Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>▪ An umpire assay programme of 528 mineralised samples from 173 drill holes was completed by ALS Laboratories in 2007</li> <li>▪ Results between twinned RC and diamond holes are in approximate agreement, when taken into consideration with the natural variation associated with breccia-hosted ore bodies, identified coarse mineralisation, and subsequent weathering overprinting.</li> <li>▪ All assay data QAQC is checked prior to loading into the CuDECO Explorer 3 data base.</li> <li>▪ The CuDECO Explorer 3 data base was originally developed and managed by consulting geologists, Terra Search Pty Ltd, and was subsequently handed over to CuDECO Ltd in mid-2009. The data base and geological interpretation is collectively managed by the CuDECO Resource Committee, and relayed to the Resource Consultants by the nominated member of this committee, Exploration Adviser Mr David Wilson.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>• Specification of the grid system used.</li> <li>• Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>▪ All drill holes at Rocklands have been surveyed with a differential global positioning system (DGPS) to within 10 cm accuracy and recorded in the CuDECO Explorer 3 database.</li> <li>▪ All drill holes, apart from vertical, have had down hole magnetic surveys at intervals not greater than 50 m and where magnetite will not affect the survey. Surveys where magnetite is suspected to have influenced results have been removed from the Database.</li> <li>▪ Where surveys are dubious the hole was resurveyed, where possible, via open hole in non-magnetic material.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>• Data spacing for reporting of Exploration Results.</li> <li>• Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>• Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Drilling has been completed on nominal local grid north-south sections, commencing at 100 m spacing and then closing to 50 m and 25 m for resource estimation. Local drilling in complex near-surface areas is further closed in to 12.5m</li> <li>▪ Vertical spacing of intercepts on the mineralised zones similarly commences at 100 m spacing and then closing to 50m and 25m for resource estimation, again some closer spacing is used in complex areas.</li> <li>▪ Drilling has predominantly occurred with angled holes approximately 55° to 60° inclination below the horizontal and either drilling to the local grid north or south, depending on the dip of the target mineralised zone.</li> <li>▪ Holes have been drilled to 600 m vertical depth</li> <li>▪ Drilling is currently focused on the known mineralised zones of Las Minerale and Las Minerale East; Rocklands South and South Extension; Rocklands Central and Le Meridian; Rainden, Solsbury Hill and Fairfield.</li> <li>▪ Data spacing and distribution is sufficient to establish geological and grade continuity appropriate for the Mineral Resource estimation procedure and has been taken into account in 3D space when determining the classifications to be applied.</li> </ul>



Criteria	JORC Code explanation	Commentary
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ Samples were composited to 2m down-hole for resource estimation in the known wireframe constrained mineralised zones and 10m down-hole in the general lithology zone (Inferred only).</li> <li>▪ Drilling was completed on local grid north-south section lines along the strike of the known mineralised zones and from either the north or the south depending on the dip</li> <li>▪ Vertical to south dipping ore bodies at Las Minerale, Rocklands South Extended, Rainden and Solsbury Hill, were predominantly drilled to the north whilst vertical to north dipping ore bodies at Las Minerale East, Rocklands South, Rocklands Central and Le Meridian were predominantly drilled to the south. Fairfield strikes northeast to the local grid and is vertically dipping, most drill holes intersect at a low-moderate angle.</li> <li>▪ Scissor drilling, (drilling from both north and south), as well as vertical drilling, has been used in key mineralised zones at Las Minerale and Rocklands South to achieve unbiased sampling of possible structures, mineralised zones and weathering horizons.</li> <li>▪ Horizontal layers of supergene enrichment occur at shallow depths in Las Minerale and Rocklands South and a vertical drill program was undertaken to address this layering and to provide bulk samples for metallurgical test work.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ Samples are either dispatched from site through a commercial courier or company employees to the Laboratories. Samples are signed for at the Laboratory with confirmation of receipt emailed through. Samples are then stored at the laboratory and returned to a locked storage shed on site.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ CuDECO conducts internal audits of sampling techniques and data management on a regular basis, to ensure industry best practice is employed at all times.</li> </ul> <p>External reviews and audits of sampling have been conducted by the following groups;</p> <ul style="list-style-type: none"> <li>▪ 2007 – In July 2007, Snowden were engaged to conduct a review of drilling and sampling procedures at Rocklands, provide guidance on potential areas of improvement in data / sample management and geological logging procedures, and to ensure the Rocklands sampling and data record was appropriate for use in resource estimation. All recommendations were implemented.</li> <li>▪ 2010 – In early 2010 Hellman &amp; Schofield conducted a desktop review of the Rocklands database, as part of their due diligence for the resource estimate they completed in May 2010. Apart from limited logic and spot checks, the database was received on a “good faith” basis with responsibility for its accuracy taken by CuDECO. A number of issues were identified by H&amp;S but these were largely addressed by CuDECO and H&amp;S regarded unresolved issues at the time of resource estimation as unlikely to have a material impact on future estimates.</li> <li>▪ 2010 - Mr Andrew Vigar of Mining Associates Limited visited the site in 12 to 15 October, 3 to 5 November and 8 to 10 December 2010 during the compilation of detailed review the drilling, sampling techniques, QAQC and previous resource estimates and 17 to 19 March 2011 to confirm the same for new drilling incorporated into this resource estimate. Methods were found to conform to international best practise, including that required by the JORC standard.</li> </ul>

## 1.2 JORC TABLE 1 - SECTION 2 - REPORTING OF EXPLORATION RESULTS

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary																																																																																					
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>The Rocklands Project is located within granted mining leases ML90177 and ML90188, and Infrastructure Lease ML90219. Landowner agreements formed part of the granting, and remain current for the duration of the mining leases.</li> <li>Native Title Ancillary agreements have been signed with the Mitakoodi &amp; Mayi peoples and the Kalkadoon peoples, the local custodians of the areas covered by the mining leases.</li> <li>Mining Leases detailed above are granted for a period of 30 years; there is no known impediment to operating for this period of time. The Project operates under a Plan of Operations, the most recent of which was approved on 17<sup>th</sup> October, 2013.</li> </ul>																																																																																					
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Previous reports on the Double Oxide mine by CRA and others between 1987 and 1994 describe a wide shear zone containing a number of sub parallel mineralised zones with a cumulative length of 6 km.</li> </ul>																																																																																					
<i>Geology</i>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>Hosted within metamorphosed meso-Proterozoic age volcano-sedimentary rocks and intrusive dolerites of the Eastern Fold Belt of the Mt Isa Inlier. Dominated by dilational brecciated shear zones containing coarse patchy to massive primary mineralisation, with high-grade supergene chalcocite enrichment and bonanza-grade coarse native copper in oxide. Structures hosting mineralisation are sub-parallel, east-southeast striking and steeply dipping. The observed mineralisation, and alteration, exhibit affinities with Iron Oxide-Copper-Gold (IOCG) style deposits. Polymetallic copper-cobalt-gold mineralisation, and significant magnetite, persists from the surface, through the oxidation profile, and remains open at depth.</li> </ul>																																																																																					
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>Summary of drilling by type and year is given in the table below. Note that some DD holes are tails on the end of RC pre-collars, such that the number of DD collars is overstated. The total number of drill hole collars and all drilling metres are correct.</li> </ul> <table border="1" data-bbox="646 1391 1430 1899"> <thead> <tr> <th>Drilling Type</th> <th></th> <th>2010</th> <th>2011</th> <th>2012</th> <th>2013</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td rowspan="2">RAB</td> <td># holes</td> <td>1514</td> <td>499</td> <td>1668</td> <td>145</td> <td>3826</td> </tr> <tr> <td>metres</td> <td>7820</td> <td>2819</td> <td>18741.5</td> <td>2211</td> <td>31591.5</td> </tr> <tr> <td rowspan="2">DD</td> <td># holes</td> <td>239</td> <td>111</td> <td>235</td> <td>28</td> <td>613</td> </tr> <tr> <td>metres</td> <td>47286.04</td> <td>17386.68</td> <td>24749.41</td> <td>7507.9</td> <td>96930.03</td> </tr> <tr> <td rowspan="2">RC</td> <td># holes</td> <td>1491</td> <td>84</td> <td>2</td> <td></td> <td>1577</td> </tr> <tr> <td>metres</td> <td>221263.1</td> <td>9850.8</td> <td>195.7</td> <td></td> <td>231309.6</td> </tr> <tr> <td rowspan="2">Geotech DD</td> <td># holes</td> <td></td> <td></td> <td>8</td> <td></td> <td>8</td> </tr> <tr> <td>metres</td> <td></td> <td></td> <td>182.6</td> <td></td> <td>182.6</td> </tr> <tr> <td rowspan="2">Open Hole</td> <td># holes</td> <td></td> <td></td> <td>1</td> <td>6</td> <td>7</td> </tr> <tr> <td>metres</td> <td></td> <td></td> <td>285</td> <td>1394</td> <td>1679</td> </tr> <tr> <td rowspan="2">Total</td> <td># holes</td> <td>3109</td> <td>684</td> <td>1914</td> <td>179</td> <td>5886</td> </tr> <tr> <td>metres</td> <td>276369.14</td> <td>30056.48</td> <td>44154.21</td> <td>11112.9</td> <td>361692.73</td> </tr> </tbody> </table>	Drilling Type		2010	2011	2012	2013	Total	RAB	# holes	1514	499	1668	145	3826	metres	7820	2819	18741.5	2211	31591.5	DD	# holes	239	111	235	28	613	metres	47286.04	17386.68	24749.41	7507.9	96930.03	RC	# holes	1491	84	2		1577	metres	221263.1	9850.8	195.7		231309.6	Geotech DD	# holes			8		8	metres			182.6		182.6	Open Hole	# holes			1	6	7	metres			285	1394	1679	Total	# holes	3109	684	1914	179	5886	metres	276369.14	30056.48	44154.21	11112.9	361692.73
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<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade</li> </ul>	<ul style="list-style-type: none"> <li>Intercepts from individual drilling programs have been reported by CuDECO in separate ASX announcements and are not repeated here.</li> <li>Informing Samples were composited to two metre lengths honouring the</li> </ul>																																																																																					

Criteria	JORC Code explanation	Commentary
	<p><i>truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i></p> <ul style="list-style-type: none"> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<p>geological domains and adjusted where necessary to ensure that no residual sample lengths have been excluded (best fit).</p> <ul style="list-style-type: none"> <li>Metal equivalents are not used in domaining, but are reported. The formulae used are as follows</li> <li>CuCoAu equivalent grades were based on metal prices and metallurgical recoveries provided by CuDECO and refer to recovered equivalents: <ul style="list-style-type: none"> <li>Cu 95% recovery US\$2.00 per Pound</li> <li>Co 90% recovery US\$26.00 per Pound</li> <li>Au 75% recovery US\$900.00 per Ounce</li> <li>Magnetite 75% recovery US\$195 per Tonne</li> </ul> </li> <li>The recovered copper equivalent formula was: <ul style="list-style-type: none"> <li><math>CuCoAu\% = Cu\% + Co\text{ ppm} * 0.001232 + Au\text{ ppm} * 0.518238</math></li> <li><math>CuEq\% = Cu\% + Co\text{ ppm} * 0.001232 + Au\text{ ppm} * 0.518238 + Mag\% * 0.035342</math></li> </ul> </li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>Mineralised structures are variable in orientation, and therefore drill orientations have been adjusted from place to place in order to allow intersection angles as close as possible to true widths.</li> <li>Exploration results have been reported by CuDECO in earlier statements to the ASX as an interval with 'from' and 'to' stated in tables of significant economic intercepts. Tables clearly indicate that true widths will generally be narrower than those reported.</li> <li>Resource estimation, as reported later, was done in 3D space.</li> </ul>
Diagrams	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>Tabulated intercepts for all drill holes is not considered applicable to a project with over 5000 drill holes and estimated resources. Results of individual drilling programmes with significant intercepts, maps and cross sections have been reported to the ASX by CuDECO at the time of drilling.</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>Resources have been reported at a range of cut-off grades, above a minimum suitable for open pit mining.</li> </ul>
Other substantive exploration data	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): <ul style="list-style-type: none"> <li>geological observations;</li> <li>geophysical survey results;</li> <li>geochemical survey results;</li> <li>bulk samples – size and method of treatment;</li> <li>metallurgical test results;</li> <li>bulk density, groundwater, geotechnical and rock characteristics;</li> <li>potential deleterious or contaminating</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Extensive work in these areas has been completed, and was reported by CuDECO in earlier statements to the ASX.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<i>substances.</i>	
<i>Further work</i>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ Mineralisation is open at depth. Current estimates are restricted to those expected to be reasonable for open pit mining. Limited drilling below this depth (-250m RL) shows widths and grades potentially suitable for underground extraction. CuDECO are currently considering target sizes and exploration programs to test this potential to 1,000m from surface.</li> </ul>

### 1.3 JORC TABLE 1 - SECTION 3 - ESTIMATION AND REPORTING OF MINERAL RESOURCES

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
<i>Database integrity</i>	<ul style="list-style-type: none"> <li>• <i>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</i></li> <li>• <i>Data validation procedures used.</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ The Rocklands database is a Microsoft Access based Explorer 3 database system.</li> <li>▪ Data is logged directly into an Excel spreadsheet logging system with drop down field lists.</li> <li>▪ Validation checks are written into the importing program in the Explorer 3 data base, an error is triggered if data is not in correct format and ensures all data is of high quality.</li> <li>▪ Digital assay data is obtained from the Laboratory, QAQC checked and imported into Explorer 3.</li> <li>▪ Data tables were exported from Explorer 3 as a sub-set, also in MS Access format, and connected directly to the Gemcom Surpac mine software used by MA for interpretation and resource estimation.</li> <li>▪ Data was validated prior to resource estimation by the reporting of basic statistics for each of the grade fields, including examination of maximum values, and visual checks of drill traces and grades on sections and plans. Errors were reported back to CuDECO for correction in the Explorer 3 Database.</li> </ul>
<i>Site visits</i>	<ul style="list-style-type: none"> <li>• <i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i></li> <li>• <i>If no site visits have been undertaken indicate why this is the case.</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ Mr Andrew Vigar of Mining Associates Limited visited the site from 12 to 15 October, 3 to 5 November and 8 to 10 December 2010, and from 17 to 19 March 2011 during the compilation of a detailed review of the drilling, sampling techniques, QAQC and previous resource estimates. Mr. Vigar also visited the site from 24 to 25 September 2013 to confirm the same for new drilling incorporated into this resource estimate. Methods were found to conform to international best practise, including that required by the JORC standard.</li> </ul>
<i>Geological interpretation</i>	<ul style="list-style-type: none"> <li>• <i>Confidence in (or conversely, the uncertainty of ) the geological interpretation of the mineral deposit.</i></li> <li>• <i>Nature of the data used and of any assumptions made.</i></li> <li>• <i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i></li> <li>• <i>The use of geology in guiding and controlling Mineral Resource</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ The Rocklands copper-cobalt-gold mineralisation is hosted in a series of subparallel, east south east trending, steeply dipping zones. Mineralised lodes occur within a metamorphosed sedimentary succession of siltstone, sandstone/quartzite, quartz magnetite/jaspilite lenses, calcareous beds and calc-silicates of Proterozoic age. Copper is the dominant mineralisation at Rocklands, lesser amounts of cobalt and gold. Copper mineralisation extends from surface to depth with overlapping oxide, secondary and primary styles of copper mineralisation. Mineralisation appears to be associated with and controlled by steeply dipping, west northwest trending, linear, structures that cut the shallow dipping metasedimentary sequence at a high angle.</li> <li>▪ Orientation and grade of the known mineralised zones are clearly influenced by a combination of steeply dipping structurally controlled features, which</li> </ul>

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	<p>estimation.</p> <ul style="list-style-type: none"> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<p>may be spatially associated with largely sub vertical dolerite dykes, and shallowly dipping favourable lithological units.</p> <ul style="list-style-type: none"> <li>Controlling structures are sub-vertical and strike in a north-northwest orientation.</li> <li>Copper mineralisation extends from surface and is open at depth with overlapping oxide, secondary and primary styles. Primary sulphide mineralisation occurs at the base of a thick secondary mineralisation sequence of native copper and chalcocite with a minor complete oxidation zone.</li> </ul>																																				
Dimensions	<ul style="list-style-type: none"> <li>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</li> </ul>	<ul style="list-style-type: none"> <li>The main area of defined mineralisation occurs as a number of sub-parallel structures over a corridor strike length of 3 km, 1.7 km wide and up to 0.64 km down dip, which excludes Solsbury Hill, Fairfield and nearby domains situated immediately to north of the main zone. There are a total of 38 currently defined domains, including Solsbury Hill and Fairfield.</li> </ul> <table border="1" data-bbox="715 790 1401 1055"> <thead> <tr> <th colspan="5">Mineralised domain extents (local grid)</th> </tr> <tr> <th></th> <th>m</th> <th>East</th> <th>North</th> <th>RL</th> </tr> </thead> <tbody> <tr> <td rowspan="3">All Resource</td> <td>min</td> <td>9350</td> <td>9960</td> <td>-425</td> </tr> <tr> <td>max</td> <td>12375</td> <td>14860</td> <td>235</td> </tr> <tr> <td>extent</td> <td>3025</td> <td>4900</td> <td>660</td> </tr> <tr> <td rowspan="3">Main Corridor</td> <td>min</td> <td>9390</td> <td>12100</td> <td>-425</td> </tr> <tr> <td>max</td> <td>12375</td> <td>13175</td> <td>235</td> </tr> <tr> <td>extent</td> <td>2985</td> <td>1075</td> <td>660</td> </tr> </tbody> </table>	Mineralised domain extents (local grid)						m	East	North	RL	All Resource	min	9350	9960	-425	max	12375	14860	235	extent	3025	4900	660	Main Corridor	min	9390	12100	-425	max	12375	13175	235	extent	2985	1075	660
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Estimation and modelling techniques	<ul style="list-style-type: none"> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions behind</li> </ul>	<ul style="list-style-type: none"> <li>The resource estimate has been revised from "first principles" based on a review and re-interpretation of the geological controls and using the results of the extensive recent drilling programs.</li> <li>Mineralised domains were digitised on cross sections defining boundaries for High-grade Cu as &gt;0.5%Cu, Low-grade Cu as &gt;0.1% Cu and Cobalt as &gt;100ppm Co. The domains are nested. There are a total of 38 currently defined domains. The intervals for each drill hole for each domain were tagged into database tables and used for compositing and selection of informing samples.</li> <li>Grade estimation of copper, gold, cobalt and magnetite in most mineralised domains used ordinary kriging (OK) into a parent block size of 12.5 m (E) by 2 m (N) by 5 m (RL) for all areas except Fairfield. Estimation at Fairfield used a parent block size of 6.25 m (E) by 1 m (N) by 2.5 m (RL).</li> <li>Grade estimation of copper in Las Minerale and Rocklands South high grade domains used multiple indicator kriging (MIK) with cut-offs of 2%, 10% and 20% Cu. Two MIK estimates were obtained using DD-only and RC + DD data, so that sampling bias related to drilling method could be minimised. The estimated Cu value assigned in the final block model was based on the conditional bias slope of an OK estimate using DD-only data in the following manner: If DD IK slope &gt; 0.3, block grade = DD IK grade; if slope &lt;0.3, block grade = DD-RC IK grade.</li> <li>Defined mineralised domains were constrained with 3D wireframes Results for Cu were compared with the raw drill data and also with block estimates made using Nearest Neighbour and Inverse Distance squared block estimates, the first to test the impact of averaging and clustering, the latter the impact of clustering and the selected variogram. Resource categories were defined using sampling density, number of informing samples and conditional bias slope of regression.</li> <li>Geological and grade modelling work encompassed all drilling. Modelling work was extended vertically to the limits of the current drillhole assay database; section interpretations were extended a maximum of 25 m down dip and beyond the limit of drilling. Mineralisation is interpreted to be continuous between drill holes both along strike and down dip within the defined domains.</li> </ul>																																				

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	<p><i>modelling of selective mining units.</i></p> <ul style="list-style-type: none"> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul>	<ul style="list-style-type: none"> <li>Host lithologies between defined wireframe domains were allocated a lithological type and grades estimated into a larger block size of 50 m (E) by 8 m (N) by 20 m (RL) with data available outside of the wireframe domains. Where possible the wireframe domains were extended to these areas, but some areas where drilling and/or geological knowledge was insufficient remained, these areas are known as "undominated". Where grades above cut-off were identified and where these blocks had sufficient informing samples for the tonnage and grade estimates to be reliable, have been included in the inferred category only.</li> <li>Weathering horizons for oxide and semi-oxide were defined on section by CuDECO using drill lithological logs, as were domains for native copper and chalcocite at Las Minerale and Rocklands South.</li> <li>Block models were validated by visual and statistical comparison of drill hole and block grades and through grade-tonnage analysis.</li> <li>Kriged copper estimates were validated against Nearest Neighbour and Inverse Distance Squared copper estimates. These alternative models undertaken by different software and personnel achieved very close agreement with the reported results.</li> </ul>
Moisture	<ul style="list-style-type: none"> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	<ul style="list-style-type: none"> <li>All tonnages are reported on a dry basis.</li> </ul>
Cut-off parameters	<ul style="list-style-type: none"> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul style="list-style-type: none"> <li>Lower cut-off grade for resource reporting of 0.2% CuCoAu and only blocks above -250m RL were applied to blocks in reporting the resource estimates for a range of cut-off grades.</li> <li>Total C1 costs (mining, milling and admin) are approximately \$18 per tonne of ore, which was based on open pit mining and a strip ratio of 3 to 1. Using weighted average price for Cu Co and Au over the last 5 years and allowing for differential recoveries gives a cut-off of approx. 0.23% CuCoAu.</li> <li>Magnetite only resources are reported above a minimum cut-off of 10%.</li> </ul>
Mining factors or assumptions	<ul style="list-style-type: none"> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>Preliminary pit optimisation was undertaken using Whittle software by an independent mining engineering consultancy. The aim of this work was to identify the approximate proportion of the modelled estimates that fall inside an optimum pit shell using prevailing metal prices, preliminary metallurgical recoveries and assumed inputs such as pit slopes. This work was not intended to define reserves. The key metallurgical recovery assumptions were 95% for Cu, 90% for Co and 75% for Au as advised by CuDECO, The pit reached a depth of about -180m RL</li> <li>Size of preliminary conceptual pits is strongly affected by inputs, particularly metal recoveries and metal prices which, if unrealised, may result in significant portions of resource estimates not reporting to future open pits.</li> <li>The Xstrata December 2009 Resource Statement for the nearby, and geologically similar, Ernest Henry open cut is for a Total Resource of 21Mt @ 0.9% Cu, 0.5 g/t Au and 18% magnetite using a cut-off grade of 0.27 % Cu. Final depth is 530m below surface.</li> <li>The resource is therefore considered as open pittable above an elevation of -250 m RL, or about 475 m from surface.</li> </ul>
Metallurgical factors or assumptions	<ul style="list-style-type: none"> <li>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual</li> </ul>	<ul style="list-style-type: none"> <li>Numerous technologies and techniques have been applied to ore samples extracted from across the Rocklands mineralised zones to establish the general amenity of the Rockland's mineral species to efficient recovery to produce quality saleable products, and to determine any potential processing problems.</li> <li>No significant impediments to the efficient recovery of Rocklands copper, cobalt, magnetite and gold minerals have been encountered during the</li> </ul>

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	<p><i>economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i></p>	<p>exhausting programme of laboratory and small and large-scale pilot processing testwork.</p> <ul style="list-style-type: none"> <li>No deleterious elements are present in concentrate products produced in the test programmes at concentrations in excess of, or near to, concentrations which would be likely to attract a penalty from a smelter or other end users.</li> <li>Concentrate products are above the minimum specification required to achieve full payment from smelters or other end users.</li> </ul> <p>The following procedures and processing techniques have been applied to Rocklands mineralised zones:</p> <table border="1"> <thead> <tr> <th>Zone</th> <th>Crush</th> <th>Screen</th> <th>Leach</th> <th>Mill</th> <th>Gravity Conc.</th> <th>Flotation</th> <th>Filtration</th> </tr> </thead> <tbody> <tr> <td>Oxidised</td> <td>√</td> <td></td> <td>√</td> <td></td> <td></td> <td>√</td> <td></td> </tr> <tr> <td>Native Copper</td> <td>√</td> <td>√</td> <td></td> <td>√</td> <td>√</td> <td>√</td> <td>√</td> </tr> <tr> <td>Chalcocite</td> <td>√</td> <td></td> <td></td> <td>√</td> <td></td> <td>√</td> <td>√</td> </tr> <tr> <td>Primary</td> <td>√</td> <td></td> <td></td> <td>√</td> <td></td> <td>√</td> <td>√</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>The following recovery values can be applied, based on weighted averages, across the mineralised zones to support resource estimation calculations:</li> </ul> <table border="1"> <thead> <tr> <th>Element/mineral</th> <th>Copper</th> <th>Cobalt</th> <th>Gold</th> <th>Magnetite</th> </tr> </thead> <tbody> <tr> <td>Recovery</td> <td>95%</td> <td>90%</td> <td>75%</td> <td>75%</td> </tr> </tbody> </table>	Zone	Crush	Screen	Leach	Mill	Gravity Conc.	Flotation	Filtration	Oxidised	√		√			√		Native Copper	√	√		√	√	√	√	Chalcocite	√			√		√	√	Primary	√			√		√	√	Element/mineral	Copper	Cobalt	Gold	Magnetite	Recovery	95%	90%	75%	75%
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<p><i>Environmental factors or assumptions</i></p>	<ul style="list-style-type: none"> <li><i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Assessment Report for the Environmental Impact Statement and Environmental Management Plan for the Rocklands Goup Copper Project was issued by the Queensland Government on 1st August 2011 and the Environmental Authority (EA) which enabled the commencement of the Project was issued on 31st October, 2011.</li> <li>The Project currently operates under the Queensland EA, Permit Number EPML00887913.</li> <li>The environmental approvals referred to above allow the Project to operate at an average processing rate of 3.0 million tonnes per annum of ore and to dispose of the associated waste and tailings in approved-design waste-rock dumps and tailings storage facilities.</li> </ul>																																																		
<p><i>Bulk density</i></p>	<ul style="list-style-type: none"> <li><i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method</i></li> </ul>	<ul style="list-style-type: none"> <li>There were 3002 measurements, plus a number of validation tests undertaken for bulk density determinations with a spatial distribution across the Rocklands mineralised zones. Both internal and external laboratories were used in the bulk density programme. The results have been determined by way of averages for each of the main mineralised zones.</li> </ul>																																																		



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	<p>used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</p> <ul style="list-style-type: none"> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul style="list-style-type: none"> <li>The mineralised zones exhibited a definable trend of increasing bulk density with copper and magnetite grade and this has been factored for resource calculations.</li> <li>Based on the results obtained, the following table is applied to the mineralised zones for resource estimation purposes:</li> </ul> <table border="1" data-bbox="676 595 1441 913"> <thead> <tr> <th>Zone</th> <th>Baseline (t/m<sup>3</sup>)</th> <th>Cu% Factor</th> <th>Magnetite Factor</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Oxide</td> <td>2.38</td> <td>0.657</td> <td>0.0279</td> <td></td> </tr> <tr> <td>Semi Oxide</td> <td>2.70</td> <td>0.0620</td> <td>0.0247</td> <td></td> </tr> <tr> <td>Native Copper</td> <td>2.50</td> <td>0.0645</td> <td>0.0267</td> <td></td> </tr> <tr> <td>Chalcocite</td> <td>2.75</td> <td>0.062</td> <td>0.0221</td> <td></td> </tr> <tr> <td>Primary Mineralised</td> <td>2.9</td> <td>0.0605</td> <td>0.0227</td> <td></td> </tr> <tr> <td>Fresh</td> <td>2.75</td> <td>0.0625</td> <td>0.242</td> <td></td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>The grade formula applied to the zone for resource estimation purposes is as follows:  <math display="block">\text{Bulk Density} = \text{Baseline} + \% \text{Cu} * \text{CuFactor} + \text{Magnetite}\% * \text{MagnetiteFactor}</math> </li> </ul>	Zone	Baseline (t/m <sup>3</sup> )	Cu% Factor	Magnetite Factor	%	Oxide	2.38	0.657	0.0279		Semi Oxide	2.70	0.0620	0.0247		Native Copper	2.50	0.0645	0.0267		Chalcocite	2.75	0.062	0.0221		Primary Mineralised	2.9	0.0605	0.0227		Fresh	2.75	0.0625	0.242	
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Classification	<ul style="list-style-type: none"> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul style="list-style-type: none"> <li>Resource classification is based on number of informing samples, kriging conditional bias slope ("Slope") and search distance to informing samples.</li> <li>Blocks within the defined wireframes domains are classified as measured, indicated or inferred based on the following criteria <ul style="list-style-type: none"> <li>Measured - maximum number of informing samples, Slope &gt;0.8</li> <li>Indicated - maximum number of informing samples, Slope &gt;0.4</li> <li>Inferred - block estimated within domain wireframes, minimum of 3 informing samples within maximum search of 300m.</li> </ul> </li> <li>Host lithologies between defined wireframe domains are known as "undominated". Where grades above cut-off of 0.2% CuCoAu were identified and where these blocks had sufficient informing samples for the tonnage and grade estimates to be reliable, have been included in the inferred category only. Search range for this category was reduced to 200 m and minimum number of informing samples increased to 10 as no domain wireframes were used.</li> <li>Magnetite-only material was also allocated in the "undominated" section of the deposit using the same criteria as described above. A cut-off of 10% magnetite was applied.</li> </ul>																																			
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of Mineral Resource estimates.</li> </ul>	<ul style="list-style-type: none"> <li>CuDECO's internal review and audit of the February 2014 Mineral Resource Estimate consisted of data analysis and geological interpretation of over 210 individual cross-sections, comparing drill-hole data with the resource estimate block model.</li> <li>Good correlation of geological and grade boundaries were observed, however some loss of resolution is observed when high-grade results are present, due to the apparent smoothing of these results into surrounding blocks.</li> <li>No external audits or reviews of the mineral resource estimate were undertaken.</li> </ul> <p><b>Comparison with previous Mineral Resource estimate</b></p> <ul style="list-style-type: none"> <li>In May 2011 CuDECO released a mineral resource estimate prepared by Mining Associates Australia.</li> <li>CuCoAu equivalent grades were based on metal prices and metallurgical recoveries provided by CuDECO and refer to recovered equivalents:  Cu                      95% recovery                      US\$2.00 per Pound</li> </ul>																																			

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		<p>Co 90% recovery US\$26.00 per Pound                      Au 75% recovery US\$900.00 per Ounce                      Magnetite 75% recovery US\$175 per Tonne</p> <p>The recovered copper equivalent formulae applied were:  <math>CuCoAu\% = Cu\% + Co\text{ ppm} \times 0.001232 + Au\text{ ppm} \times 0.518238</math></p> $CuEq\% = Cu\% + Co\text{ ppm} \times 0.001232 + Au\text{ ppm} \times 0.518238 + magnetite\% \times 0.035342$																																																																																																																																																																																																																																																																																																																																																																																																	
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<td>1.93</td> <td>2.06</td> <td>335</td> <td>589</td> <td>628</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="11">Indicated Resource Estimate May 2011 at various cut-off grades</th> </tr> <tr> <th>cut-off</th> <th>Tonnes</th> <th colspan="4">Estimated Grade</th> <th colspan="2">Copper Equivalent</th> <th colspan="3">Contained Metal</th> </tr> <tr> <th>CuCoAu</th> <th></th> <th>Cu</th> <th>Co</th> <th>Au</th> <th>Mag</th> <th>CuCoAu</th> <th>CuEq</th> <th>Cu</th> <th>CuCoAu</th> <th>CuEq</th> </tr> <tr> <th>%</th> <th>Mt</th> <th>%</th> <th>ppm</th> <th>ppm</th> <th>%</th> <th>%</th> <th>%</th> <th>Mlb</th> <th>Mlb</th> <th>Mlb</th> </tr> </thead> <tbody> <tr> <td>0.2</td> <td>121.9</td> <td>0.19</td> <td>241</td> <td>0.08</td> <td>3.1</td> <td>0.53</td> <td>0.64</td> <td>505</td> <td>1,417</td> <td>1,712</td> </tr> <tr> <td>0.4</td> <td>63.3</td> <td>0.32</td> <td>291</td> <td>0.11</td> <td>2.74</td> <td>0.74</td> <td>0.83</td> <td>448</td> <td>1,026</td> <td>1,161</td> </tr> <tr> <td>0.8</td> <td>16.4</td> <td>0.81</td> <td>367</td> <td>0.19</td> <td>1.32</td> <td>1.36</td> <td>1.4</td> <td>293</td> <td>491</td> <td>508</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="11">Total Measured and Indicated Resource Estimate May 2011 at various cut-off grades</th> </tr> <tr> <th>cut-off</th> <th>Tonnes</th> <th colspan="4">Estimated Grade</th> <th colspan="2">Copper Equivalent</th> <th colspan="3">Contained Metal</th> </tr> <tr> <th>CuCoAu</th> <th></th> <th>Cu</th> <th>Co</th> <th>Au</th> <th>Mag</th> <th>CuCoAu</th> <th>CuEq</th> <th>Cu</th> <th>CuCoAu</th> <th>CuEq</th> </tr> <tr> <th>%</th> <th>Mt</th> <th>%</th> <th>ppm</th> <th>ppm</th> <th>%</th> <th>%</th> <th>%</th> <th>Mlb</th> <th>Mlb</th> <th>Mlb</th> </tr> </thead> <tbody> <tr> <td>0.2</td> <td>169.2</td> <td>0.25</td> <td>273</td> <td>0.09</td> <td>3.05</td> <td>0.63</td> <td>0.74</td> <td>930</td> <td>2,347</td> <td>2,750</td> </tr> <tr> <td>0.4</td> <td>97.9</td> <td>0.4</td> <td>332</td> <td>0.11</td> <td>2.82</td> <td>0.86</td> <td>0.96</td> <td>858</td> <td>1,864</td> <td>2,080</td> </tr> <tr> <td>0.8</td> <td>30.3</td> <td>0.94</td> <td>472</td> <td>0.19</td> <td>2.34</td> <td>1.62</td> <td>1.7</td> <td>627</td> <td>1,081</td> <td>1,136</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="11">Inferred Resource Estimate May 2011 at various cut-off grades</th> </tr> <tr> <th>cut-off</th> <th>Tonnes</th> <th colspan="4">Estimated Grade</th> <th colspan="2">Copper Equivalent</th> <th colspan="3">Contained Metal</th> </tr> <tr> <th>CuCoAu</th> <th></th> <th>Cu</th> <th>Co</th> <th>Au</th> <th>Mag</th> <th>CuCoAu</th> <th>CuEq</th> <th>Cu</th> <th>CuCoAu</th> <th>CuEq</th> </tr> <tr> <th>%</th> <th>Mt</th> <th>%</th> <th>ppm</th> <th>ppm</th> <th>%</th> <th>%</th> <th>%</th> <th>Mlb</th> <th>Mlb</th> <th>Mlb</th> </tr> </thead> <tbody> <tr> <td>0.2</td> <td>103.7</td> <td>0.06</td> <td>167</td> <td>0.1</td> <td>2.87</td> <td>0.32</td> <td>0.42</td> <td>134</td> <td>724</td> <td>957</td> </tr> <tr> <td>0.4</td> <td>20.6</td> <td>0.17</td> <td>269</td> <td>0.08</td> <td>2.11</td> <td>0.55</td> <td>0.62</td> <td>78</td> <td>248</td> <td>282</td> </tr> <tr> <td>0.8</td> <td>1.1</td> <td>0.8</td> <td>281</td> <td>0.13</td> <td>1.06</td> <td>1.22</td> <td>1.25</td> <td>19</td> <td>29</td> <td>29</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="11">Total Measured, Indicated and Inferred Resource Estimate May 2011 at various cut-off grades</th> </tr> <tr> <th>cut-off</th> <th>Tonnes</th> <th colspan="4">Estimated Grade</th> <th colspan="2">Copper Equivalent</th> <th colspan="3">Contained Metal</th> </tr> <tr> <th>CuCoAu</th> <th></th> <th>Cu</th> <th>Co</th> <th>Au</th> <th>Mag</th> <th>CuCoAu</th> <th>CuEq</th> <th>Cu</th> <th>CuCoAu</th> <th>CuEq</th> </tr> <tr> <th>%</th> <th>Mt</th> <th>%</th> <th>ppm</th> <th>ppm</th> <th>%</th> <th>%</th> <th>%</th> <th>Mlb</th> 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Although tonnes were gained with the addition of Fairfield, adjustments to mineralised domain wireframes based on new drilling resulted in a similar net decrease elsewhere. Measured resource tonnes increased, while Indicated and Inferred tonnes decreased due to additional drilling increasing estimation confidence in some areas.</li> <li>There is a substantial increase in copper and magnetite grades. Copper grades at higher CuCoAu cut-offs (0.4% and 0.8%) were increased due to the effects of sample bias in Las Minerale and Rocklands South high grade oxide zones being mitigated by MIK estimation, and from new high grade intersections of copper in parts of Rocklands South. Magnetite grades have almost doubled as a result of updated factors being used to convert magnetic susceptibility to magnetite content.</li> </ul>	Measured Resource Estimate May 2011 at various cut-off grades											cut-off	Tonnes	Estimated Grade				Copper Equivalent		Contained Metal			CuCoAu		Cu	Co	Au	Mag	CuCoAu	CuEq	Cu	CuCoAu	CuEq	%	Mt	%	ppm	ppm	%	%	%	Mlb	Mlb	Mlb	0.2	47.2	0.41	353	0.1	2.94	0.89	1	425	929	1,037	0.4	34.6	0.54	407	0.11	2.97	1.1	1.2	410	838	918	0.8	13.8	1.1	597	0.19	3.53	1.93	2.06	335	589	628	Indicated Resource Estimate May 2011 at various cut-off grades											cut-off	Tonnes	Estimated Grade				Copper Equivalent		Contained Metal			CuCoAu		Cu	Co	Au	Mag	CuCoAu	CuEq	Cu	CuCoAu	CuEq	%	Mt	%	ppm	ppm	%	%	%	Mlb	Mlb	Mlb	0.2	121.9	0.19	241	0.08	3.1	0.53	0.64	505	1,417	1,712	0.4	63.3	0.32	291	0.11	2.74	0.74	0.83	448	1,026	1,161	0.8	16.4	0.81	367	0.19	1.32	1.36	1.4	293	491	508	Total Measured and Indicated Resource Estimate May 2011 at various cut-off grades											cut-off	Tonnes	Estimated Grade				Copper Equivalent		Contained Metal			CuCoAu		Cu	Co	Au	Mag	CuCoAu	CuEq	Cu	CuCoAu	CuEq	%	Mt	%	ppm	ppm	%	%	%	Mlb	Mlb	Mlb	0.2	169.2	0.25	273	0.09	3.05	0.63	0.74	930	2,347	2,750	0.4	97.9	0.4	332	0.11	2.82	0.86	0.96	858	1,864	2,080	0.8	30.3	0.94	472	0.19	2.34	1.62	1.7	627	1,081	1,136	Inferred Resource Estimate May 2011 at various cut-off grades											cut-off	Tonnes	Estimated Grade				Copper Equivalent		Contained Metal			CuCoAu		Cu	Co	Au	Mag	CuCoAu	CuEq	Cu	CuCoAu	CuEq	%	Mt	%	ppm	ppm	%	%	%	Mlb	Mlb	Mlb	0.2	103.7	0.06	167	0.1	2.87	0.32	0.42	134	724	957	0.4	20.6	0.17	269	0.08	2.11	0.55	0.62	78	248	282	0.8	1.1	0.8	281	0.13	1.06	1.22	1.25	19	29	29	Total Measured, Indicated and Inferred Resource Estimate May 2011 at various cut-off grades											cut-off	Tonnes	Estimated Grade				Copper Equivalent		Contained Metal			CuCoAu		Cu	Co	Au	Mag	CuCoAu	CuEq	Cu	CuCoAu	CuEq	%	Mt	%	ppm	ppm	%	%	%	Mlb	Mlb	Mlb	0.2	272.9	0.18	233	0.09	2.98	0.51	0.62	1,064	3,070	3,704	0.4	118.5	0.36	321	0.11	2.7	0.81	0.9	935	2,112	2,361	0.8	31.4	0.94	465	0.19	2.29	1.61	1.69	646	1,109	1,165
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Criteria	JORC Code explanation	Commentary
<p><i>Discussion of relative accuracy/confidence</i></p>	<ul style="list-style-type: none"> <li>• <i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i></li> <li>• <i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></li> <li>• <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ An approach to the resource classification was used which combined both confidence in geological continuity (domain wireframes) and statistical analysis. The level of accuracy and risk is therefore reflected in the allocation of the measured, indicated and inferred resource categories.</li> <li>▪ “Undomained” material, both copper and magnetite mineralisation, is restricted by the current level of drilling. Reporting of this as an Inferred resource was constrained by use of tight estimation parameters. It is expected that further work will extend this considerably.</li> <li>▪ Using the slope of regression as a guide to classification of mineral resource takes the quality and hence accuracy of the block estimates into consideration.</li> <li>▪ Resources estimates have been made on a local basis using a block model with variable block sizes which reflect the informing sample density. The model is suitable for technical and economic evaluation.</li> <li>▪ The deposit is not yet in production. A grade control system, including reconciliation to the resource estimates, is currently being designed and will be used in future resource updates.</li> </ul>





### 1.3 RESERVE ASSESSMENT

Table 7 JORC Table 1 Section 4, Estimation and Reporting Ore Reserves

Criteria	Explanation	Assessment
Mineral Resource estimate for conversion to Ore Reserves	<ul style="list-style-type: none"> <li><i>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</i></li> <li><i>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Ore Reserve Estimate is based on the November 2013 Resource Estimate prepared by MAPL (ASX announcement 29/11/2013). CuDeco supplied the resource drill hole database, geological interpretation and domain wireframes and average density estimates for the material types. MAPL undertook all other aspects of the resource modelling work, and takes overall responsibility for the resource estimate.</li> <li>The Resource Estimate is in a rotated block model format, with grades interpolated using Ordinary Kriging (OK). Kriging techniques were used to estimate grade into large panels, these panels were subsequently sub-blocked to 12.5m x 2m x 5m (local-grid East x local-grid North x RL). The estimation has been tightly constrained within wireframe boundaries defined by geology, structure and a 0.1% copper grade envelope. The model includes grades for copper, cobalt, gold and magnetite.</li> <li>The modelled resource grades do not incorporate dilution.</li> <li>Bulk density has been defined using 3,002 measurements, categorised according to weathering, copper mineral zones, copper grade and magnetite grade. Bulk density measurements were taken on cut and un-cut diamond drill core using wax coating where necessary and determined by the Archimedeian Method, i.e. weight in air/weight in water.</li> <li>The estimated resources include Measured, Indicated and Inferred categories, and are inclusive of the Ore Reserves. Resource categories were defined using sampling density, number of informing samples and conditional bias slope of regression as follows:-             <ul style="list-style-type: none"> <li>Measured - maximum number of informing samples, bias slope of regression &gt;0.8</li> <li>Indicated - maximum number of informing samples, bias slope of regression &gt;0.4</li> <li>Inferred - block estimated within domain wireframes, minimum of 3 informing samples within maximum search of 300m.</li> </ul> </li> <li>The unmined portion of the Ore Reserve is a subset of the unmined portion of the Resource.</li> <li>The surface stockpiles form part of the Proved Ore Reserve and are a conversion from that component of the Measured Resource with minor updates to tonnes and grades based on the latest grade control data.</li> <li>The Resource Estimate was provided to AMDAD in Surpac block model format.</li> </ul>
Site visits	<ul style="list-style-type: none"> <li><i>Comment on any site visits undertaken by the Competent Person and the outcome of</i></li> </ul>	John Wyche, Competent Person for overall Ore Reserves sign-off, undertook a site visit at Rocklands on 19th June 2014 including the following inspections:



	<p><i>those visits.</i></p> <ul style="list-style-type: none"> <li><i>If no site visits have been undertaken indicate why this is the case.</i></li> </ul>	<ul style="list-style-type: none"> <li>Rocklands open cut and waste rock dump areas</li> <li>Ore stockpiles</li> <li>Process plant (under construction)</li> </ul>
<p>Study status</p>	<ul style="list-style-type: none"> <li><i>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</i></li> <li><i>The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Rocklands Ore Reserve Estimate has been prepared in conjunction with a Feasibility Study of the Rocklands Project by CuDeco and its consultants.</li> <li>The Feasibility Study covers resource estimation, mining, processing, marketing, environment, community and financial modelling. These studies define the Modifying Factors used in this Ore Reserve Estimate.</li> <li>The Feasibility Study indicates a high degree of confidence that the project is technically and economically viable for the metal prices assumed.</li> <li>The status of the Rocklands Project is outlined below:- <ul style="list-style-type: none"> <li>a) Mining operations commenced at the Rocklands Project in 2012. The Las Minerale Stage 1 open pit is completed, Las Minerale Stage 2 has been mined down approximately 45m below surface to 180mRL, the Las Mineral Final Stage has been mined down to 215mRL, Rocklands South has been cleared and grubbed to the final pit limit with some surface mining to 5m depth, Southern Rocklands Extended pit has been mined down to 208mRL, approximately 12m below surface. Ore mined to-date has been stockpiled near the ROM/crusher location. Most of the parameters adopted for the mine plan are based on Rocklands mining operations experience to-date.</li> <li>b) Construction of the processing plant and general site infrastructure is nearing completion.</li> </ul> </li> </ul>
<p>Cut-off parameters</p>	<ul style="list-style-type: none"> <li><i>The basis of the cut-off grade(s) or quality parameters applied</i></li> </ul>	<ul style="list-style-type: none"> <li>Ore/waste cut of grade (COG) is determined using a recovered copper equivalent grade estimated (Spec_CuEq), based on the ratio of species of contributing metals, weathering profiles, corresponding recoveries and net metal prices. The following inputs are used in determining Spec_CuEq values; <ul style="list-style-type: none"> <li>o Copper, cobalt, gold and magnetite grades</li> <li>o Logged minerals present including; <ul style="list-style-type: none"> <li>▪ copper species</li> <li>▪ pyrite content (used to estimate cobalt recovery)</li> </ul> </li> <li>o Weathering profile (used to determine recoveries in the absence of logged minerals)</li> <li>o Magnetite content</li> <li>o Lithology</li> </ul> </li> <li>Ore is stockpiled into 1 of 12 ore type categories, also determined from the above information, in order to match metallurgical and mineralogical characteristics of various processing regimes.</li> <li>In the absence of sufficient information to determine recovered copper equivalent grades, the lowest recovery profile for each ore type is used.</li> <li>In its simplest form, Rocklands ore is segregated into three main ore types; oxide, partial-oxide (chalcocite-rich) and fresh (chalcopyrite-rich). These are further split into native copper or non-native copper bearing versions of each, then finally split</li> </ul>



		<p>once again into high-grade and low-grade versions.</p> <p><b>Rocklands ore types:</b></p> <table border="1"> <tr> <th colspan="4">oxide</th> <th colspan="4">chalcocite</th> <th colspan="4">primary</th> </tr> <tr> <th colspan="2">oxide</th> <th colspan="2">oxide + NatCu</th> <th colspan="2">chalcocite</th> <th colspan="2">chalcocite + NatCu</th> <th colspan="2">primary</th> <th colspan="2">primary + NatCu</th> </tr> <tr> <th>High</th> <th>low</th> <th>High</th> <th>low</th> <th>High</th> <th>low</th> <th>High</th> <th>low</th> <th>High</th> <th>low</th> <th>High</th> <th>low</th> </tr> </table> <p>Ore is sent to the mill for processing (or stockpiled for later processing) if the following conditions are satisfied;</p> <ul style="list-style-type: none"> <li>• <b>Oxide ore</b> <ul style="list-style-type: none"> <li>○ Low-grade: Cu% &gt;=0.5% and Cu% &lt;1%</li> <li>○ High-grade: Cu&gt;=1% Cu</li> </ul> </li> <li>• <b>All other ore types;</b> <ul style="list-style-type: none"> <li>○ Magnetite waste: Cu&lt;0.1% <u>and</u> Mag&gt;=10% (not included in reserves)</li> <li>○ Low-grade: Cu&gt;0.1% <u>and</u> Species CuEq&gt;=0.3% and Cu&lt;0.5%</li> <li>○ High-grade: Cu&gt;=0.5%</li> </ul> </li> <li>• <b>The Spec_CuEq formula is defined by the following:</b> <math display="block">\text{CuEq\%} = \sum [(\text{Copper species\%}) \times (\text{species copper content}) \times (\text{species copper recovery})]</math> <math display="block">+ \text{Co\_ppm} \times \text{Co\_rec} \times \text{PrCo} / \text{PrCu}</math> <math display="block">+ \text{Au\_ppm} \times \text{Au\_rec} \times \text{PrAu} / \text{PrCu}</math> <math display="block">+ \text{if}(\text{mag\%} &lt; 2, 0, ((\text{mag\%} - 2) * \text{magrec} * \text{PrMgt} / \text{PrCu})</math> <p>for the recoveries and net prices tabulated below:-</p> <table border="1"> <tr> <th>Metal</th> <th>Copper Species</th> <th>Recovery (rec)</th> <th>Net Price</th> <th>Net Price (Pr) per grade unit</th> </tr> </table> </li> </ul>												oxide				chalcocite				primary				oxide		oxide + NatCu		chalcocite		chalcocite + NatCu		primary		primary + NatCu		High	low	High	low	High	low	High	low	High	low	High	low	Metal	Copper Species	Recovery (rec)	Net Price	Net Price (Pr) per grade unit
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Mining Factors and Assumption	<ul style="list-style-type: none"> <li>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by</li> </ul>	<ul style="list-style-type: none"> <li>The Ore Reserve estimate is based on extraction of ore by open pit mining in a conventional truck and shovel operation, using 180t and 190t class hydraulic excavators, in backhoe configuration, and 90t dump trucks. Drilling and blasting is conducted on 10m high benches. Digging is conducted on flitches of 2.5m height in the ore and up to 5m high in bulk waste blocks.</li> <li>AMDAD considers this mining method and equipment selection to be appropriate to the terrain, ore and waste geometry and scale of mining.</li> <li>AMDAD ran a Whittle™ pit optimisation to guide the pit design. The pit optimisation was run using net metal prices of A\$3.84</li> </ul>																														



	<p><i>optimisation or by preliminary or detailed design).</i></p> <ul style="list-style-type: none"> <li><i>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</i></li> <li><i>The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.</i></li> <li><i>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</i></li> <li><i>The mining dilution factors used.</i></li> <li><i>The mining recovery factors used.</i></li> <li><i>Any minimum mining widths used.</i></li> <li><i>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</i></li> <li><i>The infrastructure requirements of the selected mining methods.</i></li> </ul>	<p>per lb copper, A\$18 per pound cobalt, and A\$1200 per oz gold. Magnetite was not used in the generation of the optimised pit shells. The revenue factor (RF) 1 shell was selected by CuDeco to guide the final designs used for the Ore Reserve. Note that the RF 1 shell will maximise undiscounted cashflow for the project but may be larger than the pit that would maximise discounted cashflow.</p> <ul style="list-style-type: none"> <li>The Ordinary Kriged resource modelling technique used by MAPL estimates grades for whole blocks. This effectively incorporates internal dilution within a block. Additionally, the block grades have been adjusted for a notional "skin" of 0.5 metres along the boundary of the ore zones with 0.5m from the edge of the ore zone being lost to waste representing unavoidable mining losses. The process preserves the total mass of material, with each block gaining and losing the same volume of material but resulting in an overall decrease in metal available for milling. A 95% mining recovery is then applied to the mining block. Overall dilution of ore by sub-economic material at the ore-waste boundaries is estimated to result in a copper grade reduction of approximately 5%. In summary, modelling of a 0.5m thick dilution skin with an overall mining recovery of 95% generates:-             <ul style="list-style-type: none"> <li>A tonnage dilution of 0%</li> <li>A mining loss of 5%</li> <li>An overall copper grade factor of 0.97</li> <li>An overall metal factor of 0.92</li> </ul> </li> </ul> <p>The Reserves are an estimate of the tonnes and grade of ore delivered from the open pits to the processing plant.</p> <ul style="list-style-type: none"> <li>The Ore Reserves were estimated within a final pit design, including haul roads and safety berms. The open pit and haul road designs were generated as three dimensional computer models using Surpac<sup>TM</sup> software.</li> <li>The pit optimisation and designs for Las Minerale (LM), Rocklands South (RS) and Southern Rocklands Extended (SRE) incorporate recommended wall design parameters provided by geotechnical consultants Pells Sullivan Meynink (PSM). These recommended parameters are shown below:</li> </ul> <table border="1" data-bbox="909 999 1888 1367"> <thead> <tr> <th>Area</th> <th>Rock</th> <th>Bench Height</th> <th>Batter Angle</th> <th>Berm Width</th> <th>Inter-ramp Angle (IRA)</th> </tr> </thead> <tbody> <tr> <td>All Pits</td> <td>Above BOCO</td> <td>20m</td> <td>55°</td> <td>10m</td> <td>-</td> </tr> <tr> <td>LM Meta-sediments</td> <td>Below BOCO</td> <td>20m</td> <td>70°</td> <td>10m</td> <td>49°</td> </tr> <tr> <td>LM Dolerite</td> <td>Below BOCO</td> <td>20m</td> <td>80°</td> <td>10m</td> <td>56°</td> </tr> <tr> <td>RS North</td> <td>Below BOCO</td> <td>20m</td> <td>70°</td> <td>10m</td> <td>49°</td> </tr> <tr> <td>RS South</td> <td>Below BOCO</td> <td>20m</td> <td>65°</td> <td>10m</td> <td>46°</td> </tr> <tr> <td>RSE North</td> <td>Below BOCO</td> <td>20m</td> <td>70°</td> <td>10m</td> <td>49°</td> </tr> </tbody> </table>	Area	Rock	Bench Height	Batter Angle	Berm Width	Inter-ramp Angle (IRA)	All Pits	Above BOCO	20m	55°	10m	-	LM Meta-sediments	Below BOCO	20m	70°	10m	49°	LM Dolerite	Below BOCO	20m	80°	10m	56°	RS North	Below BOCO	20m	70°	10m	49°	RS South	Below BOCO	20m	65°	10m	46°	RSE North	Below BOCO	20m	70°	10m	49°
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<p>Metallurgical Factors or Assumptions</p>	<ul style="list-style-type: none"> <li><i>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</i></li> <li><i>Whether the metallurgical process is well-tested technology or novel in nature.</i></li> <li><i>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</i></li> <li><i>Any assumptions or allowances made for deleterious elements.</i></li> <li><i>The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.</i></li> <li><i>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</i></li> </ul>	<p>The metallurgical process has, to a reasonable extent been driven by the need to be able to accommodate, and indeed recover in saleable form, a wide range of native copper nugget sizes and also fine (&lt;1mm) native copper metal. With this in mind the choice of processing equipment has focussed on items that will do this, but also be suitable for processing efficiently the remainder of the orebody making up this reserve, a major proportion of which is “conventional” primary ore. The choice has therefore been limited to conventional and proven equipment. For example, the primary and secondary crushing circuit consists of jaw, rolls and cone crushers in series and the tertiary crushing/grinding is performed by a High Pressure Grind Rolls (HPGR) rather than a SAG mill. All this equipment is used in ‘conventional’ mineral processing circuits. alljig® jigs selected for the -40mm,+2mm native copper separation, although not widely known in Australia have been in use for gravity separation processes for over 20 years. Spirals and tables, used for separation of the fine native copper are tried and proven in similar applications in the mineral sands industry in Australia. The remainder of the process consist of conventional flotation cells and tower mills for re-grind applications, all of which are well proven in the industry.</p> <p>Early metallurgical test-work focussed on samples from drill core selected by the consulting geologists as representative of the differing ore-types as known at the time of the exploration and resource development. As the resource development drilling continued and in consultation with the geologists a much wider selection was made, including testing for performance variability across the mineral and lithological domains, and then continuing into sampling of over 6,000m of wide-diameter drill core from all parts and depths of Las Minerale and Rocklands South orebodies for the large-scale pilot plant testing of the process flowsheet.</p> <p>The factors applied as a result of this programme are:</p> <p>Analysis of the concentrates produced during laboratory testing and full-scale trial processing indicated no concentrations of deleterious elements likely to attract smelter penalties.</p> <p>Bulk sample for pilot scale testing was obtained from</p>	<table border="1"> <thead> <tr> <th rowspan="2">Ore-type (code_copper)</th> <th rowspan="2">Mill code</th> <th rowspan="2">Recovery (Av)</th> <th colspan="4">Cu Species ratio</th> </tr> <tr> <th>NC</th> <th>CC</th> <th>CPY</th> <th>OX</th> </tr> </thead> 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Mag	80.00%								NC	CC	CPY	OX	<b>CPY</b>							CPY Cu	CPY Cu	95.00%	0.00%	2.82%	95.65%	1.55%	General copper domain							CPY Co	CPY Co	90.00%					(not just primary)							CPY Au	CPY Au	75.00%					CPY Mag	CPY Mag	80.00%								NC	CC	CPY	OX	<b>NC CC</b>							NC CC Cu	NC CC Cu	95.00%	29.65%	40.85%	10.65%	8.64%	Native copper domain							NC CC Co	NC CC Co	40.00%	29.65%	40.85%	10.65%	8.64%	NC CC Au	NC CC Au	75.00%					NC CC Mag	NC CC Mag	80.00%								NC	CC	CPY	OX	<b>NC CPY</b>							NC CPY Cu	NC CPY Cu	95.00%	20.97%	14.34%	60.19%	4.50%	Native copper domain							NC CPY Co	NC CPY Co	90.00%	20.97%	14.34%	60.19%	4.50%	NC CPY Au	NC CPY Au	75.00%					NC CPY Mag	NC CPY Mag	80.00%								NC	CC	CPY	OX	<b>OX</b>							OX Cu	OX Cu	65.00%	0.00%	11.51%	8.34%	80.55%	OX Co	OX Co	10.00%					OX Au	OX Au	75.00%					OX Mag	OX Mag	80.00%								NC	CC	CPY	OX	<b>NC OX</b>							NC OX Cu	NC OX Cu	95.00%	28.72%	14.10%	4.33%	52.79%	NC OX Co	NC OX Co	10.00%	28.72%	14.10%	4.33%	52.79%	NC OX Au	NC OX 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		<p>approximately 6,000m of large diameter (PQ) core drilled over the full area and accessing the major lithological zones of Las Minerale orebody and the Rocklands South orebody.</p> <p>Ore is subdivided into mineralogical categories and grade ranges (specifications), that have been included as inputs in the ore reserve estimate. These are based on appropriate mineralogical assessment of ore to meet processing requirements for metal extraction.</p>
<p>Environmental</p>	<ul style="list-style-type: none"> <li><i>The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.</i></li> </ul>	<p><b>Environmental Legislation – Commonwealth</b></p> <p>Mining activities are also regulated by the Commonwealth Government under Environment Protection and Biodiversity Conservation Act 1999 (Cth).</p> <p>The EPBC Act defines a “controlled action” as an activity that will have, or is likely to have a “significant impact” on a “Matter of National Environmental Significance” (NES). Under the EPBC Act it an offence to take a “controlled action” without an approval under the EPBC Act.</p> <p>The requirement to submit an Environmental Impact Statement (EIS) is implemented through the EPBC Act.</p> <p><b>Environmental Impact Statement</b></p> <p>For most mining activities, the Environmental Impact Statement (EIS) process is also triggered. This is an assessment of the proposed controlled actions and submitted to the Minister to assess. Sometimes it is voluntarily done to take advantage of the bilateral agreement under the EPBC Act to ensure that only a single assessment process is applied under both State and Commonwealth environmental regulation.</p> <p><b>Environmental Legislation - State</b></p> <p>All Mining activities are regulated by both the Commonwealth and Queensland State Governments. In Queensland, the primary piece of legislation is the Environmental Protection Act 1994 (EP Act) which is administered by the Queensland Department of Environment and Heritage Protection (DEHP). The object of the EP Act is “to protect Queensland’s environment while allowing for development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends.”</p> <p><b>Environmental Authorities for mining activities</b></p> <p>The Environment Protection Act 1994 (EP Act) regulates mining activities by the issuing of an environmental authority (EA) for mining activities which are:</p> <ul style="list-style-type: none"> <li>an activity that is an authorised activity for a mining tenement under the MR Act; or</li> <li>another activity that is authorised under an approval under the MR Act that grants rights over land.</li> </ul> <p>A contravention of an EA condition can lead to prosecution under the EP Act section 430; “a person who is a holder of, or is acting under, an environmental authority must not contravene a condition of an environmental authority”. The maximum penalty for an individual is 6,250 units with a corporation five (5) times higher.</p> <p><b>Plan of Operations</b></p>





		<p>A standard condition of an EA approval requires the preparation of a plan of operations (PoO's). A plan of operations sets out how the EA conditions (including rehabilitation requirements) will be met. The specific requirements for a plan of operations are set out in the EP Act. Refer to Table 3 Cudeco Plan of Operations.</p> <p><b>Environment licencing</b></p> <p>CuDeco have held and maintained an Environmental Authority (licence) since October 2012. Since then there have been six amendments to the licence to reflect changes in site design and monitoring requirements; as more site specific information becomes available. CuDeco is currently licenced under EMPL00887913 which was approved 19<sup>th</sup> November 2014. CuDeco are currently preparing for the next EA amendment lodgement through the Department of Environment and Heritage Protection. This is currently anticipated to occur early 2016.</p> <p>An independent third party Environmental Authority audit is undertaken under conditions A27-30 of the current licence on an annual basis. This audit is to assess CuDeco's performance against licence conditions. All EA auditing has been completed by independent auditors Synnot &amp; Wilkinson since 2013.</p> <p><b>ENVIRONMENTAL APPROVALS –ROCKLANDS</b></p> <p>The Environmental approval process as required by the State of Queensland, is detailed in <b>Table 8</b> below.</p> <p>CuDeco has completed this process and has continually maintained its licencing requirements. <b>Table 9</b> over the page exhibits CuDeco's Environmental Approval history and amendments.</p> <p><b>Table 8. Environmental approval process in Queensland</b></p> <table border="1"> <thead> <tr> <th>Detail of Requirement/Trigger</th> <th>Legislation</th> <th>Department/Agency</th> </tr> </thead> <tbody> <tr> <td>Application for a Mining Lease</td> <td><i>Mineral Resources Act 1989</i> (Qld)</td> <td>Department of Employment, Economic Development and Innovation</td> </tr> <tr> <td>Application for a Environmental Authority</td> <td><i>Environmental Protection Act 1994</i> (Qld)</td> <td>Department of Environment and Resource Management</td> </tr> <tr> <td>Approval of the EIS</td> <td><i>Environmental Protection Act 1994</i> (Qld)</td> <td>Department of Environment and Resource Management</td> </tr> <tr> <td>Application for permit to take water</td> <td><i>Water Act 2000</i> (Qld)</td> <td>Department of Environment and Resource Management</td> </tr> <tr> <td>Artesian/sub artesian bore water extraction</td> <td><i>Integrated Planning Act 1997</i>; and <i>Water Act 2000</i> (Qld)</td> <td>Local Government; and Department of Environment and Resource Management</td> </tr> <tr> <td>Riverine Protection Permit to</td> <td><i>Water Act 2000</i> (Qld)</td> <td>Department of Environment and</td> </tr> </tbody> </table>	Detail of Requirement/Trigger	Legislation	Department/Agency	Application for a Mining Lease	<i>Mineral Resources Act 1989</i> (Qld)	Department of Employment, Economic Development and Innovation	Application for a Environmental Authority	<i>Environmental Protection Act 1994</i> (Qld)	Department of Environment and Resource Management	Approval of the EIS	<i>Environmental Protection Act 1994</i> (Qld)	Department of Environment and Resource Management	Application for permit to take water	<i>Water Act 2000</i> (Qld)	Department of Environment and Resource Management	Artesian/sub artesian bore water extraction	<i>Integrated Planning Act 1997</i> ; and <i>Water Act 2000</i> (Qld)	Local Government; and Department of Environment and Resource Management	Riverine Protection Permit to	<i>Water Act 2000</i> (Qld)	Department of Environment and
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		disturb vegetation in a watercourse and excavate in a watercourse prior to construction of the transport corridor for locations out the mining lease		Resource Management
		Trapping and surveying animals	<i>Nature Conservation Act 1992 (Qld)</i>	Department of Environment and Resource Management
		Native Title – Aboriginal and Torres Strait Islander owned land and identified interests (including areas in respect of which a claim under the Native Title Act has been registered by the National Native Title Tribunal)	<i>Native Title Act 1993 (Cwth); Aboriginal Cultural Heritage Act 2003 (Qld); Aboriginal Land Act 1991 (Qld); Torres Strait Islander Cultural Heritage Act 2003 (Qld); Community Services (Aboriginal) Act 1984 (Qld); and Community Services (Torres Strait Islander) Act 1984 (Qld)</i>	Department of the Premier and Cabinet; Department of Environment and Resource Management; and Department of Communities
		Land Holder Compensation Agreement	<i>Mineral Resources Act 1989 (Qld)</i>	Department of Employment, Economic Development and Innovation
		Construction of buildings, offices, site amenities, fuel storage, workshop, processing facilities, sewage treatment facilities or access roads	<i>Integrated Planning Act 1997 (Qld); and Building Act 1975 (Qld)</i>	Local Government
		Development Application for building/plumbing and drainage works (including those works authorised under the <i>Mineral Resources Act 1989 (Qld)</i> and within a mining tenement)	<i>Integrated Planning Act 1997 (Qld); and Building Act 1975 (Qld)</i>	Local Government



		Notification of building and construction work with a cost of over \$80,000.	<i>Building and Construction Industry (Portable Long Service Leave) Act 1991</i> (Qld); and <i>Workplace Health and Safety Act 1995</i> (Qld)	Department of Employment, Economic Development and Innovation																
		Creation of a road and services corridor by subdivision	<i>Integrated Planning Act 1997</i> (Qld)	Local Government																
		Compliance with local laws related to heavy vehicles / exceptional traffic movement	<i>Local Government Ordinances</i>	Local Government																
<p><b>Table 9. CuDeco's Environmental Approval history and amendments</b></p> <table border="1"> <thead> <tr> <th>Environmental Authority (EA) Date</th> <th>Amendment approval dates</th> </tr> </thead> <tbody> <tr> <td>October 2011</td> <td>Draft EA</td> </tr> <tr> <td>October 2011</td> <td>Final EA issued 31/10/2011</td> </tr> <tr> <td>October 2012</td> <td>Renewed EA issued 12/10/2012</td> </tr> <tr> <td>February 2013</td> <td>Renewed EA issued 15/02/2013</td> </tr> <tr> <td>May 2013</td> <td>Application submitted 19/06/2013 Application withdrawn by CuDeco 19/07/2013</td> </tr> <tr> <td>August 2013</td> <td>Amended EA approved 29/08/2013 Changes to Schedule C-Land and Rehabilitation           <ul style="list-style-type: none"> <li>• Biodiversity offsets</li> <li>• TSF</li> </ul> </td> </tr> <tr> <td>December 2014 (current EA)</td> <td>Amended EA approved 19/12/2014 Changes to :</td> </tr> </tbody> </table>					Environmental Authority (EA) Date	Amendment approval dates	October 2011	Draft EA	October 2011	Final EA issued 31/10/2011	October 2012	Renewed EA issued 12/10/2012	February 2013	Renewed EA issued 15/02/2013	May 2013	Application submitted 19/06/2013 Application withdrawn by CuDeco 19/07/2013	August 2013	Amended EA approved 29/08/2013 Changes to Schedule C-Land and Rehabilitation <ul style="list-style-type: none"> <li>• Biodiversity offsets</li> <li>• TSF</li> </ul>	December 2014 (current EA)	Amended EA approved 19/12/2014 Changes to :
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			<p>Schedule B-Air</p> <ul style="list-style-type: none"> <li>• Ambient air quality</li> <li>• Meteorological monitoring</li> <li>• Inclusion of Copper</li> <li>• Inclusion of continuous solar air quality monitoring method</li> </ul> <p>Schedule D-Regulated dams</p> <ul style="list-style-type: none"> <li>• Classifications of regulated dams reviewed</li> </ul> <p>Schedule E-Waste</p> <ul style="list-style-type: none"> <li>• Extension to East waste rock dump</li> </ul> <p>Schedule F-Noise</p> <ul style="list-style-type: none"> <li>• Noise limits and monitoring frequency</li> <li>• Air blast and ground vibration monitoring requirements</li> </ul> <p>Schedule G-Water</p> <ul style="list-style-type: none"> <li>• Add in new bores</li> <li>• Amendments to trigger and contaminant limits</li> </ul>													
		December 2015	<p>CuDeco is currently preparing a new EA amendment.</p> <p>This amendment is to assist CuDeco to further develop site specific environmental monitoring objectives. It is currently anticipated that this application shall be completed in early 2016.</p> <p>An updated Plan of Operations shall be completed following the approval of this EA amendment.</p>													
<p><b>Table 3. Cudeco Plan of Operations</b></p>																
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		<ul style="list-style-type: none"> <li>○ The main waste domains are dolerite, sediment, breccia, calcareous, quartz sediment, meta-sediment and cover material comprising colluvial, alluvial and ferricrete and calcrete rocks.</li> <li>○ Waste rock has a high to very high salinity risk and high pH risk and is generally poorly suited for use in outer facing of WRDs.</li> <li>○ Waste rock generally has a low to moderate sulphide content.</li> <li>○ Large proportions of carbonate can be present in the waste rock providing moderate to high acid neutralising capacities. The variability of the acid neutralising capacity of the rock however requires ongoing testing during the mining operation.</li> <li>○ Approximately 7% of the waste to be mined will require placement within an engineered PAF storage area.</li> <li>○ Different domains present varying degrees of acid production/consumption.</li> </ul>
<p>Infrastructure</p>	<ul style="list-style-type: none"> <li>• <i>The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.</i></li> </ul>	<p>Cudeco owns, or leases, and has already established all necessary office facilities in Southport, Cloncurry and on site at Rocklands.</p> <p>This includes:</p> <ul style="list-style-type: none"> <li>• Head Office (Southport, Qld)</li> <li>• Regional Office (Cloncurry, Qld)</li> <li>• Operations Office facilities (Rocklands Project Site) <ul style="list-style-type: none"> <li>○ Mining &amp; Administration Office</li> <li>○ Processing Office &amp; Control Room</li> <li>○ Mobile Maintenance Office</li> </ul> </li> </ul> <p>The Rocklands Site Facilities include crib rooms, ablution blocks, training facilities, workshops and storage areas.</p> <p><b>Accommodation</b></p> <p>Cudeco owns or leases a portfolio of properties in Cloncurry to supply accommodation to employees. These range from camp style self-contained villages to units and houses.</p> <p><b>Maintenance Facilities</b></p> <p>CuDeco has a maintenance workshop for light vehicles and light trucks. Heavy Vehicle maintenance is currently carried out in a temporary unpowered igloo facility. A permanent HV maintenance facility is under construction, the concrete pad is laid, sea containers are being converted into storage and working areas. A roof will be installed that provides working space for 100t dump trucks and other heavy machines.</p> <p><b>Explosives Infrastructure &amp; Magazines</b></p> <p>Cudeco has facilities and licensing in place to store all IE &amp; HE required for the life of the project. Magazine capacity is 40000</p>



		<p>detonators and 20 tonnes of IE accessories and storage for up to 280 tonnes of HE.</p> <p><b>Infrastructure Water Supply</b></p> <p>With Cudeco's efficient road design and dust suppressant regime, the dewatering bores have always produced excess amounts of water which is then sent to alternative water storage areas such as the WSF (Water Storage Facility). Currently Cudeco have 5 such dewatering bores in use which not only have successfully kept water out of the LM Pit and SRE Pit, but supply 3 times the amount that the Mine Infrastructure Supply needs.</p> <p><b>Production Water Supply</b></p> <p>Cudeco have already got in place 3 fully functional production bores, with the capability of producing 30L/s constantly, which is 2/3rd the make up production water required for the full operation of the process plant and ancillary water requirements. Cudeco also have an additional 5 high yield flow proven production bores that are capable of producing an extra 50L/s, with the total production water supply meeting all the demands of the process plant, mining and ancillary activities.</p> <p>Cudeco have also completed the necessary in-town infrastructure that will supply Rocklands site with back up water. The completed infrastructure comprises of two pumping stations and 10km of large diameter pipe line that is capable of supplying an addition 2ML a day which is equivalent to 23L/s.</p> <p><b>Water Storage</b></p> <p>The principal water storage facility for the Rocklands project is the Water Storage Facility (WSF) which is located approximately 1.9 km to the north west of the processing plant and which comprises a small cross valley embankment which has a maximum height of approximately 8m. The embankment will inundate an area of approximately 45.3 hectares and has a capacity of approximately 1.1 Gigalitres at full supply level. The WSF has sufficient capacity to supply water for the processing plant during extreme dry years</p> <p>Water diverted around the mining areas will flow through the Water Harvesting Facility (WHF) with at least 25% of the flows allowed to continue downstream. This facility has a capacity of 98,000 m3 to the spillway invert, but will rarely contain water. This facility will be unlined as it is only a short term holding cell.</p> <p>Adjacent to the processing plant is the several process water ponds which will store return water from the tailings storage facility, make-up water from the WSF and pumped flows from the ROM pad pond and other minor water sumps in around the crushing plant. This pond will have a capacity of 20,000m3 equivalent to 3 days of plant operation. This pond will be lined with a single 1.0mm HDPE liner. This pond will supply firefighting water for the processing plant as well.</p> <p>Small turkey nest ponds are positioned at various locations around the site to provide dust suppression and to supply alternate firefighting water sources, these storages are sized individually depending on dust suppression requirements and range from 1000m3 to 3000m3. It is envisaged that there will always be turkey nest ponds located near each of the open pits and other key areas of the site.</p> <p><b>Potable Water Supply, Treatment and Dispersal</b></p> <p>The potable water requirement for the Project is 3.6 KL/day. Potable water is currently being processed on site with a fully functional Reverse Osmosis (RO) unit, which is fed from a dewatering bore that was analysed as being potable in nature. This RO unit is capable of producing 20 KL/day and is more than adequate to supplying the project with all its potable water requirements.</p>
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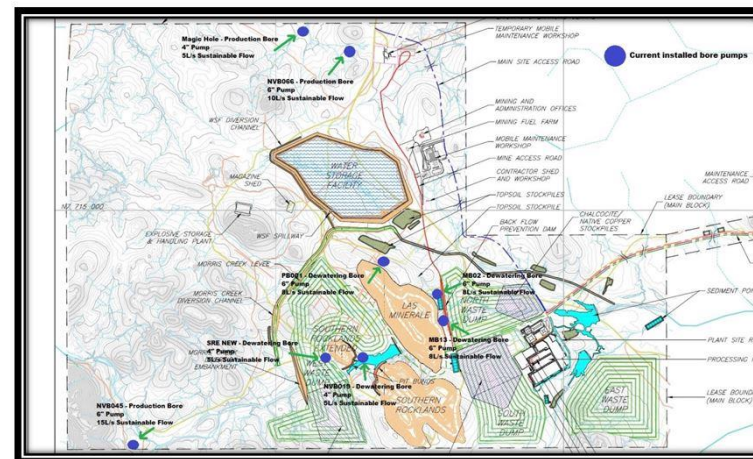
		<p><b>Raw Water Supply and Dispersal</b></p> <p>The raw water requirement for the Project is 0.5 KL/day, which is primarily used for supplying amenities all over site, from toilets and bathrooms, wash-down facilities and other minor applications such as drilling needs.</p> <p><b>Current Sustainable Flow Rates from Production and Dewatering Bores</b></p> <table border="1"> <thead> <tr> <th><i>HOLE ID</i></th> <th><i>BORE TYPE</i></th> <th><i>LOCATION</i></th> <th><i>PUMP SIZE</i></th> <th><i>SUSTAINABLE FLOW</i></th> </tr> </thead> <tbody> <tr> <td><i>MH1</i></td> <td><i>Production</i></td> <td><i>Northern Boundary</i></td> <td><i>4"</i></td> <td><i>5L/s</i></td> </tr> <tr> <td><i>NVB066</i></td> <td><i>Production</i></td> <td><i>Solsbury Hill</i></td> <td><i>6"</i></td> <td><i>10L/s</i></td> </tr> <tr> <td><i>PB001</i></td> <td><i>Dewatering</i></td> <td><i>Turkeys Nest 1</i></td> <td><i>6"</i></td> <td><i>8L/s</i></td> </tr> <tr> <td><i>MB02</i></td> <td><i>Dewatering</i></td> <td><i>Haul Road/LM Pit East</i></td> <td><i>6"</i></td> <td><i>8L/s</i></td> </tr> <tr> <td><i>MB13</i></td> <td><i>Dewatering</i></td> <td><i>Haul Road/LM Pit East</i></td> <td><i>6"</i></td> <td><i>8L/s</i></td> </tr> <tr> <td><i>NVB019</i></td> <td><i>Dewatering</i></td> <td><i>SRE Pit East</i></td> <td><i>4"</i></td> <td><i>5L/s</i></td> </tr> <tr> <td><i>SRE1</i></td> <td><i>Dewatering</i></td> <td><i>SRE Pit West</i></td> <td><i>4"</i></td> <td><i>5L/s</i></td> </tr> <tr> <td><i>NVB045</i></td> <td><i>Production</i></td> <td><i>Fox Mountain</i></td> <td><i>6"</i></td> <td><i>15L/s</i></td> </tr> </tbody> </table> <p><u>Table showing the current sustainable flow rates from installed bore pumps</u></p> <p><b>Proposed/Future Sustainable Flow Rates from Production and Dewatering Bores</b></p> <table border="1"> <thead> <tr> <th><i>HOLE ID</i></th> <th><i>BORE TYPE</i></th> <th><i>LOCATION</i></th> <th><i>PUMP SIZE</i></th> <th><i>SUSTAINABLE FLOW</i></th> </tr> </thead> <tbody> <tr> <td><i>MH2</i></td> <td><i>Production</i></td> <td><i>Northern Boundary</i></td> <td><i>6"</i></td> <td><i>10L/s</i></td> </tr> <tr> <td><i>PR1</i></td> <td><i>Production</i></td> <td><i>Western Boundary</i></td> <td><i>4"</i></td> <td><i>5L/s</i></td> </tr> <tr> <td><i>PR2</i></td> <td><i>Production</i></td> <td><i>Western Boundary</i></td> <td><i>6"</i></td> <td><i>10L/s</i></td> </tr> </tbody> </table>	<i>HOLE ID</i>	<i>BORE TYPE</i>	<i>LOCATION</i>	<i>PUMP SIZE</i>	<i>SUSTAINABLE FLOW</i>	<i>MH1</i>	<i>Production</i>	<i>Northern Boundary</i>	<i>4"</i>	<i>5L/s</i>	<i>NVB066</i>	<i>Production</i>	<i>Solsbury Hill</i>	<i>6"</i>	<i>10L/s</i>	<i>PB001</i>	<i>Dewatering</i>	<i>Turkeys Nest 1</i>	<i>6"</i>	<i>8L/s</i>	<i>MB02</i>	<i>Dewatering</i>	<i>Haul Road/LM Pit East</i>	<i>6"</i>	<i>8L/s</i>	<i>MB13</i>	<i>Dewatering</i>	<i>Haul Road/LM Pit East</i>	<i>6"</i>	<i>8L/s</i>	<i>NVB019</i>	<i>Dewatering</i>	<i>SRE Pit East</i>	<i>4"</i>	<i>5L/s</i>	<i>SRE1</i>	<i>Dewatering</i>	<i>SRE Pit West</i>	<i>4"</i>	<i>5L/s</i>	<i>NVB045</i>	<i>Production</i>	<i>Fox Mountain</i>	<i>6"</i>	<i>15L/s</i>	<i>HOLE ID</i>	<i>BORE TYPE</i>	<i>LOCATION</i>	<i>PUMP SIZE</i>	<i>SUSTAINABLE FLOW</i>	<i>MH2</i>	<i>Production</i>	<i>Northern Boundary</i>	<i>6"</i>	<i>10L/s</i>	<i>PR1</i>	<i>Production</i>	<i>Western Boundary</i>	<i>4"</i>	<i>5L/s</i>	<i>PR2</i>	<i>Production</i>	<i>Western Boundary</i>	<i>6"</i>	<i>10L/s</i>
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NVB055	Production	Fox Mountain	6"	15L/s
NVB056	Production	Fox Mountain	6"	15L/s
SRE2	Dewatering	SRE Pit North	4"	5L/s
SR1	Dewatering	SR Pit North	6"	8L/s
SR2	Dewatering	SR Pit West	6"	8L/s
SR3	Dewatering	SR Pit South	6"	8L/s

Table showing proposed/future sustainable flow rates from yet to be installed bore pumps



Map showing the locations of the current fully installed bore pumps



		<p style="text-align: center;"><i>Map showing current and proposed/future bore pumps</i></p>																		
<p>Costs</p>	<ul style="list-style-type: none"> <li>• The derivation of, or assumptions made, regarding projected capital costs in the study.</li> <li>• The methodology used to estimate operating costs.</li> <li>• Allowances made for the content of deleterious elements.</li> <li>• The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co-products.</li> <li>• The source of exchange rates used in the study.</li> <li>• Derivation of transportation</li> </ul>	<table border="1"> <thead> <tr> <th>Cost Category</th> <th>AUD (\$000's)</th> </tr> </thead> <tbody> <tr> <td><b>Capital Costs to July 2015</b></td> <td></td> </tr> <tr> <td>Process plant</td> <td>247,533</td> </tr> <tr> <td>Land &amp; Buildings</td> <td>16,951</td> </tr> <tr> <td>Other Assets</td> <td>36,847</td> </tr> <tr> <td>Mine Development Expenditure</td> <td>214,307</td> </tr> <tr> <td></td> <td><b>515,638</b></td> </tr> <tr> <td>Estimated costs to completion</td> <td>70,987</td> </tr> <tr> <td><b>Total Estimated Capital Costs</b></td> <td><b>586,625</b></td> </tr> </tbody> </table>	Cost Category	AUD (\$000's)	<b>Capital Costs to July 2015</b>		Process plant	247,533	Land & Buildings	16,951	Other Assets	36,847	Mine Development Expenditure	214,307		<b>515,638</b>	Estimated costs to completion	70,987	<b>Total Estimated Capital Costs</b>	<b>586,625</b>
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	<p><i>charges.</i></p> <ul style="list-style-type: none"> <li><i>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</i></li> <li><i>The allowances made for royalties payable, both Government and private.</i></li> </ul>	<p>The operating costs reflect the cost of mining based on actual performances of The Project and mining unit rates since commencement of mining in November 2012. Processing costs are based on estimated budgeted costs of similar sized Australian copper operations and outputs as per the design of the plant by the EPCM contractor, Sinosteel.</p> <ol style="list-style-type: none"> <li>Mining operations will ramp up to 22.0 million tonnes per annum in year 3, which will enable a sufficient stockpile to allow mining to cease in year 7.</li> <li>Processing throughput is 3.0 million tonnes per annum</li> </ol> <p>All costs are reported in Australian dollars (AUD), unless otherwise specified. Exchange rate used - \$0.715 AUD to USD.</p> <p>Site personnel all reside in Cloncurry and those recruited from areas outside of Cloncurry are provided accommodation by The Project. Employees that work on a fly-in fly-out (FIFO) arrangements are not reimbursed for any travel or accommodation whilst travelling to or from site i.e. all personnel are recruited out of Cloncurry. There is a small team working from head office, Southport Queensland, which include Company Secretary, Administration and Finance.</p> <p>Processing cost includes gravity jigs, only native copper ore needs to go through gravity jigs which is expected to be between 8-9Mt of native copper ore. Jigs will run for first 3-4 years only, thereafter some remnant native copper ore may batch-processed as it is accessed in later pits, but this will be stockpiled and batch-processed for no more than a total of 2-3 quarters only. Jigs will be by-passed, saving processing costs associated with the jigs.</p> <table border="1" data-bbox="792 831 1995 1233"> <thead> <tr> <th>Commodity Prices</th> <th>Unit</th> <th>Total</th> <th>2015/16</th> <th>2016/17</th> <th>2017/18</th> <th>2018/19</th> <th>2019/20</th> <th>2020/21</th> <th>2021/22</th> <th>2022/23</th> <th>2023/24</th> <th>2024/25</th> <th>2025/26</th> </tr> </thead> <tbody> <tr> <td>Exchange Rate</td> <td>USD/AUD</td> <td>0.692</td> <td>0.715</td> <td>0.684</td> <td>0.684</td> <td>0.684</td> <td>0.683</td> <td>0.683</td> <td>0.687</td> <td>0.691</td> <td>0.696</td> <td>0.700</td> <td>0.704</td> </tr> <tr> <td><b>Commodity Prices</b></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td><b>Copper</b></td> <td>USD/lb</td> <td>2.56</td> <td>2.40</td> <td>2.47</td> <td>2.49</td> <td>2.50</td> <td>2.53</td> <td>2.56</td> <td>2.58</td> <td>2.61</td> <td>2.63</td> <td>2.66</td> <td>2.69</td> </tr> <tr> <td>95% Payable</td> <td>AUD/t</td> <td>7,742</td> <td>7,030</td> <td>7,553</td> <td>7,621</td> <td>7,669</td> <td>7,771</td> <td>7,851</td> <td>7,878</td> <td>7,906</td> <td>7,933</td> <td>7,961</td> <td>7,986</td> </tr> <tr> <td><b>Cobalt</b></td> <td>USD/lb</td> <td>13.63</td> <td>12.90</td> <td>12.90</td> <td>13.18</td> <td>13.38</td> <td>13.59</td> <td>13.71</td> <td>13.82</td> <td>13.94</td> <td>14.05</td> <td>14.16</td> <td>14.28</td> </tr> <tr> <td>90% Payable</td> <td>AUD/t</td> <td>39,090</td> <td>35,798</td> <td>37,428</td> <td>38,222</td> <td>38,854</td> <td>39,481</td> <td>39,833</td> <td>39,914</td> <td>39,996</td> <td>40,077</td> <td>40,159</td> <td>40,230</td> </tr> <tr> <td><b>Calc Sulphur</b></td> <td>USD/t</td> <td>133</td> <td>130</td> <td>131</td> <td>131</td> <td>132</td> <td>132</td> <td>133</td> <td>133</td> <td>134</td> <td>134</td> <td>135</td> <td>135</td> </tr> <tr> <td>80% Payable</td> <td>AUD/t</td> <td>153</td> <td>145</td> <td>153</td> <td>153</td> <td>154</td> <td>155</td> <td>156</td> <td>155</td> <td>155</td> <td>154</td> <td>154</td> <td>153</td> </tr> <tr> <td><b>Gold</b></td> <td>USD/oz</td> <td>1,167</td> <td>1,140</td> <td>1,162</td> <td>1,179</td> <td>1,176</td> <td>1,174</td> <td>1,173</td> <td>1,171</td> <td>1,169</td> <td>1,167</td> <td>1,165</td> <td>1,164</td> </tr> <tr> <td>95% Payable</td> <td>AUD/oz</td> <td>1,603</td> <td>1,515</td> <td>1,614</td> <td>1,637</td> <td>1,635</td> <td>1,633</td> <td>1,632</td> <td>1,619</td> <td>1,606</td> <td>1,594</td> <td>1,582</td> <td>1,571</td> </tr> <tr> <td><b>Magnetite</b></td> <td>AUD/t</td> <td>66</td> <td>70</td> <td>65</td> <td>64</td> <td>64</td> <td>64</td> <td>64</td> <td>65</td> <td>66</td> <td>66</td> <td>67</td> <td>68</td> </tr> <tr> <td><b>Silver</b></td> <td>USD/oz</td> <td>16</td> <td>15</td> <td>15</td> <td>16</td> <td>16</td> <td>16</td> <td>16</td> <td>17</td> <td>17</td> <td>17</td> <td>18</td> <td>18</td> </tr> <tr> <td>95% Payable</td> <td>AUD/oz</td> <td>23</td> <td>20</td> <td>21</td> <td>22</td> <td>22</td> <td>22</td> <td>23</td> <td>23</td> <td>24</td> <td>24</td> <td>24</td> <td>24</td> </tr> </tbody> </table> <p>AUD/USD Exchange rate linked to gold, iron Ore &amp; coal prices with a start price of 0.73</p> <p>Concentrate transport cost (FOB/t) – AUD \$94.00</p> <p>Cu Treatment &amp; Refining Costs per pound – AUD \$0.33</p>	Commodity Prices	Unit	Total	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	Exchange Rate	USD/AUD	0.692	0.715	0.684	0.684	0.684	0.683	0.683	0.687	0.691	0.696	0.700	0.704	<b>Commodity Prices</b>														<b>Copper</b>	USD/lb	2.56	2.40	2.47	2.49	2.50	2.53	2.56	2.58	2.61	2.63	2.66	2.69	95% Payable	AUD/t	7,742	7,030	7,553	7,621	7,669	7,771	7,851	7,878	7,906	7,933	7,961	7,986	<b>Cobalt</b>	USD/lb	13.63	12.90	12.90	13.18	13.38	13.59	13.71	13.82	13.94	14.05	14.16	14.28	90% Payable	AUD/t	39,090	35,798	37,428	38,222	38,854	39,481	39,833	39,914	39,996	40,077	40,159	40,230	<b>Calc Sulphur</b>	USD/t	133	130	131	131	132	132	133	133	134	134	135	135	80% Payable	AUD/t	153	145	153	153	154	155	156	155	155	154	154	153	<b>Gold</b>	USD/oz	1,167	1,140	1,162	1,179	1,176	1,174	1,173	1,171	1,169	1,167	1,165	1,164	95% Payable	AUD/oz	1,603	1,515	1,614	1,637	1,635	1,633	1,632	1,619	1,606	1,594	1,582	1,571	<b>Magnetite</b>	AUD/t	66	70	65	64	64	64	64	65	66	66	67	68	<b>Silver</b>	USD/oz	16	15	15	16	16	16	16	17	17	17	18	18	95% Payable	AUD/oz	23	20	21	22	22	22	23	23	24	24	24	24
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Exchange Rate	USD/AUD	0.692	0.715	0.684	0.684	0.684	0.683	0.683	0.687	0.691	0.696	0.700	0.704																																																																																																																																																																																									
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<b>Copper</b>	USD/lb	2.56	2.40	2.47	2.49	2.50	2.53	2.56	2.58	2.61	2.63	2.66	2.69																																																																																																																																																																																									
95% Payable	AUD/t	7,742	7,030	7,553	7,621	7,669	7,771	7,851	7,878	7,906	7,933	7,961	7,986																																																																																																																																																																																									
<b>Cobalt</b>	USD/lb	13.63	12.90	12.90	13.18	13.38	13.59	13.71	13.82	13.94	14.05	14.16	14.28																																																																																																																																																																																									
90% Payable	AUD/t	39,090	35,798	37,428	38,222	38,854	39,481	39,833	39,914	39,996	40,077	40,159	40,230																																																																																																																																																																																									
<b>Calc Sulphur</b>	USD/t	133	130	131	131	132	132	133	133	134	134	135	135																																																																																																																																																																																									
80% Payable	AUD/t	153	145	153	153	154	155	156	155	155	154	154	153																																																																																																																																																																																									
<b>Gold</b>	USD/oz	1,167	1,140	1,162	1,179	1,176	1,174	1,173	1,171	1,169	1,167	1,165	1,164																																																																																																																																																																																									
95% Payable	AUD/oz	1,603	1,515	1,614	1,637	1,635	1,633	1,632	1,619	1,606	1,594	1,582	1,571																																																																																																																																																																																									
<b>Magnetite</b>	AUD/t	66	70	65	64	64	64	64	65	66	66	67	68																																																																																																																																																																																									
<b>Silver</b>	USD/oz	16	15	15	16	16	16	16	17	17	17	18	18																																																																																																																																																																																									
95% Payable	AUD/oz	23	20	21	22	22	22	23	23	24	24	24	24																																																																																																																																																																																									



		<p>Treatment &amp; Refining Costs per pound (CuEq - av all products) – AUD \$0.44</p> <p>Gold – 1 g/t</p> <p>Silver – 30 g/t</p> <table border="1" data-bbox="745 443 1944 657"> <thead> <tr> <th>Royalties</th> <th>Rate (%)</th> <th>Comment</th> </tr> </thead> <tbody> <tr> <td>Cu (approximate royalty rate @ US\$57,400per oz)</td> <td>4.10%</td> <td>Variable</td> </tr> <tr> <td>NatCu (95%+ con)</td> <td>3.28%</td> <td>Discount to CPY</td> </tr> <tr> <td>Co</td> <td>2.70%</td> <td>Flat</td> </tr> <tr> <td>Au/Ag</td> <td>5.00%</td> <td>Flat</td> </tr> <tr> <td>Mgt</td> <td>\$1.25</td> <td>AUD\$ Flat rate per tonne (if Mgt &lt;\$100/t)</td> </tr> <tr> <td>S</td> <td>2.50%</td> <td>Non-prescribed in QLD (falls under "other minerals")</td> </tr> </tbody> </table>	Royalties	Rate (%)	Comment	Cu (approximate royalty rate @ US\$57,400per oz)	4.10%	Variable	NatCu (95%+ con)	3.28%	Discount to CPY	Co	2.70%	Flat	Au/Ag	5.00%	Flat	Mgt	\$1.25	AUD\$ Flat rate per tonne (if Mgt <\$100/t)	S	2.50%	Non-prescribed in QLD (falls under "other minerals")																																																																																																																																																																																																																																																																																																																																																																				
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<p>Revenue factors</p>	<ul style="list-style-type: none"> <li>The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.</li> <li>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</li> </ul>	<table border="1" data-bbox="745 667 1955 1278"> <thead> <tr> <th>PHYSICALS</th> <th>Total</th> <th>2015/16</th> <th>2016/17</th> <th>2017/18</th> <th>2018/19</th> <th>2019/20</th> <th>2020/21</th> <th>2021/22</th> <th>2022/23</th> <th>2023/24</th> <th>2024/25</th> <th>2025/26</th> </tr> </thead> <tbody> <tr> <td><b>Ore Mined/Processed</b></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Ore Mined</td> <td>142,304</td> <td>2,445</td> <td>20,000</td> <td>20,000</td> <td>25,000</td> <td>20,000</td> <td>20,000</td> <td>20,000</td> <td>14,859</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>Ore Processed</td> <td>30,522</td> <td>840</td> <td>3,000</td> <td>3,000</td> <td>3,000</td> <td>3,000</td> <td>3,000</td> <td>3,000</td> <td>3,000</td> <td>3,000</td> <td>3,000</td> <td>2,682</td> </tr> <tr> <td><b>Production</b></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td><b>Copper</b></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Produced</td> <td>187,002</td> <td>15,113</td> <td>34,414</td> <td>18,424</td> <td>17,902</td> <td>16,302</td> <td>21,860</td> <td>15,603</td> <td>16,398</td> <td>15,235</td> <td>10,422</td> <td>5,328</td> </tr> <tr> <td>Head Grade - CuEq</td> <td>1.53</td> <td>4.13</td> <td>2.76</td> <td>1.37</td> <td>1.52</td> <td>1.59</td> <td>1.84</td> <td>1.37</td> <td>1.22</td> <td>1.27</td> <td>0.90</td> <td>0.60</td> </tr> <tr> <td>Head Grade - Cu</td> <td>0.73</td> <td>2.63</td> <td>1.42</td> <td>0.68</td> <td>0.67</td> <td>0.64</td> <td>0.83</td> <td>0.59</td> <td>0.58</td> <td>0.61</td> <td>0.42</td> <td>0.25</td> </tr> <tr> <td>Recovery - Conc Grade Equ</td> <td>30.36</td> <td>30.36</td> <td>30.36</td> <td>30.36</td> <td>30.36</td> <td>30.36</td> <td>30.36</td> <td>30.36</td> <td>30.36</td> <td>30.36</td> <td>30.36</td> <td>30.36</td> </tr> <tr> <td>Recovery - Nat Cu</td> <td>95.00</td> <td>95.00</td> <td>95.00</td> <td>95.00</td> <td>95.00</td> <td>95.00</td> <td>95.00</td> <td>95.00</td> <td>95.00</td> <td>95.00</td> <td>95.00</td> <td>95.00</td> </tr> <tr> <td><b>Cobalt</b></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Produced</td> <td>9,315</td> <td>362</td> <td>1,647</td> <td>784</td> <td>915</td> <td>1,081</td> <td>1,238</td> <td>914</td> <td>712</td> <td>657</td> <td>573</td> <td>431</td> </tr> <tr> <td>Head Grade</td> <td>364.9</td> <td>848.9</td> <td>669.2</td> <td>278.3</td> <td>364.9</td> <td>395.9</td> <td>423.7</td> <td>315.2</td> <td>237.9</td> <td>310.9</td> <td>269.2</td> <td>234.9</td> </tr> <tr> <td>Recovery</td> <td>92.00</td> <td>92.00</td> <td>92.00</td> <td>92.00</td> <td>92.00</td> <td>92.00</td> <td>92.00</td> <td>92.00</td> <td>92.00</td> <td>92.00</td> <td>92.00</td> <td>92.00</td> </tr> <tr> <td><b>Gold</b></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Produced</td> <td>92,777</td> <td>6,598</td> <td>12,931</td> <td>9,039</td> <td>9,992</td> <td>7,778</td> <td>9,869</td> <td>7,357</td> <td>10,743</td> <td>8,815</td> <td>5,672</td> <td>3,982</td> </tr> <tr> <td>Head Grade</td> <td>0.14</td> <td>0.37</td> <td>0.21</td> <td>0.14</td> <td>0.15</td> <td>0.12</td> <td>0.15</td> <td>0.11</td> <td>0.16</td> <td>0.13</td> <td>0.09</td> <td>0.07</td> </tr> <tr> <td><b>Magnetite</b></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Produced</td> <td>1,659,696</td> <td>45,088</td> <td>228,395</td> <td>170,052</td> <td>172,897</td> <td>236,274</td> <td>234,340</td> <td>178,857</td> <td>131,405</td> <td>121,816</td> <td>91,837</td> <td>48,734</td> </tr> <tr> <td>Head Grade</td> <td>6.95</td> <td>6.86</td> <td>9.73</td> <td>7.25</td> <td>7.37</td> <td>10.07</td> <td>9.99</td> <td>7.62</td> <td>5.60</td> <td>5.19</td> <td>3.91</td> <td>2.32</td> </tr> <tr> <td>Recovery</td> <td>86.48</td> <td>86.48</td> <td>86.48</td> <td>86.48</td> <td>86.48</td> <td>86.48</td> <td>86.48</td> <td>86.48</td> <td>86.48</td> <td>86.48</td> <td>86.48</td> <td>86.48</td> </tr> <tr> <td><b>Commodity Prices</b></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Copper</td> <td>7,742</td> <td>7,030</td> <td>7,553</td> <td>7,621</td> <td>7,669</td> <td>7,771</td> <td>7,851</td> <td>7,878</td> <td>7,906</td> <td>7,933</td> <td>7,961</td> <td>7,986</td> </tr> <tr> <td>Cobalt</td> <td>39,090</td> <td>35,798</td> <td>37,428</td> <td>38,222</td> <td>38,854</td> <td>39,481</td> <td>39,833</td> <td>39,914</td> <td>39,996</td> <td>40,077</td> <td>40,159</td> <td>40,230</td> </tr> <tr> <td>Calc Sulphur</td> <td>153</td> <td>145</td> <td>153</td> <td>153</td> <td>154</td> <td>155</td> <td>156</td> <td>155</td> <td>155</td> <td>154</td> <td>154</td> <td>153</td> </tr> <tr> <td>Gold</td> <td>1,603</td> <td>1,515</td> <td>1,614</td> <td>1,637</td> <td>1,635</td> <td>1,633</td> <td>1,632</td> <td>1,619</td> <td>1,606</td> <td>1,594</td> <td>1,582</td> <td>1,571</td> </tr> <tr> <td>Magnetite</td> <td>66</td> <td>70</td> <td>65</td> <td>64</td> <td>64</td> <td>64</td> <td>64</td> <td>65</td> <td>66</td> <td>66</td> <td>67</td> <td>68</td> </tr> <tr> <td>Silver</td> <td>23</td> <td>20</td> <td>21</td> <td>22</td> <td>22</td> <td>22</td> <td>23</td> <td>23</td> <td>24</td> <td>24</td> <td>24</td> <td>24</td> </tr> </tbody> </table>	PHYSICALS	Total	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	<b>Ore Mined/Processed</b>													Ore Mined	142,304	2,445	20,000	20,000	25,000	20,000	20,000	20,000	14,859	-	-	-	Ore Processed	30,522	840	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	2,682	<b>Production</b>													<b>Copper</b>													Produced	187,002	15,113	34,414	18,424	17,902	16,302	21,860	15,603	16,398	15,235	10,422	5,328	Head Grade - CuEq	1.53	4.13	2.76	1.37	1.52	1.59	1.84	1.37	1.22	1.27	0.90	0.60	Head Grade - Cu	0.73	2.63	1.42	0.68	0.67	0.64	0.83	0.59	0.58	0.61	0.42	0.25	Recovery - Conc Grade Equ	30.36	30.36	30.36	30.36	30.36	30.36	30.36	30.36	30.36	30.36	30.36	30.36	Recovery - Nat Cu	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	<b>Cobalt</b>													Produced	9,315	362	1,647	784	915	1,081	1,238	914	712	657	573	431	Head Grade	364.9	848.9	669.2	278.3	364.9	395.9	423.7	315.2	237.9	310.9	269.2	234.9	Recovery	92.00	92.00	92.00	92.00	92.00	92.00	92.00	92.00	92.00	92.00	92.00	92.00	<b>Gold</b>													Produced	92,777	6,598	12,931	9,039	9,992	7,778	9,869	7,357	10,743	8,815	5,672	3,982	Head Grade	0.14	0.37	0.21	0.14	0.15	0.12	0.15	0.11	0.16	0.13	0.09	0.07	<b>Magnetite</b>													Produced	1,659,696	45,088	228,395	170,052	172,897	236,274	234,340	178,857	131,405	121,816	91,837	48,734	Head Grade	6.95	6.86	9.73	7.25	7.37	10.07	9.99	7.62	5.60	5.19	3.91	2.32	Recovery	86.48	86.48	86.48	86.48	86.48	86.48	86.48	86.48	86.48	86.48	86.48	86.48	<b>Commodity Prices</b>													Copper	7,742	7,030	7,553	7,621	7,669	7,771	7,851	7,878	7,906	7,933	7,961	7,986	Cobalt	39,090	35,798	37,428	38,222	38,854	39,481	39,833	39,914	39,996	40,077	40,159	40,230	Calc Sulphur	153	145	153	153	154	155	156	155	155	154	154	153	Gold	1,603	1,515	1,614	1,637	1,635	1,633	1,632	1,619	1,606	1,594	1,582	1,571	Magnetite	66	70	65	64	64	64	64	65	66	66	67	68	Silver	23	20	21	22	22	22	23	23	24	24	24	24
PHYSICALS	Total	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26																																																																																																																																																																																																																																																																																																																																																																															
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Ore Processed	30,522	840	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	2,682																																																																																																																																																																																																																																																																																																																																																																															
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Head Grade - CuEq	1.53	4.13	2.76	1.37	1.52	1.59	1.84	1.37	1.22	1.27	0.90	0.60																																																																																																																																																																																																																																																																																																																																																																															
Head Grade - Cu	0.73	2.63	1.42	0.68	0.67	0.64	0.83	0.59	0.58	0.61	0.42	0.25																																																																																																																																																																																																																																																																																																																																																																															
Recovery - Conc Grade Equ	30.36	30.36	30.36	30.36	30.36	30.36	30.36	30.36	30.36	30.36	30.36	30.36																																																																																																																																																																																																																																																																																																																																																																															
Recovery - Nat Cu	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00																																																																																																																																																																																																																																																																																																																																																																															
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Produced	9,315	362	1,647	784	915	1,081	1,238	914	712	657	573	431																																																																																																																																																																																																																																																																																																																																																																															
Head Grade	364.9	848.9	669.2	278.3	364.9	395.9	423.7	315.2	237.9	310.9	269.2	234.9																																																																																																																																																																																																																																																																																																																																																																															
Recovery	92.00	92.00	92.00	92.00	92.00	92.00	92.00	92.00	92.00	92.00	92.00	92.00																																																																																																																																																																																																																																																																																																																																																																															
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Produced	92,777	6,598	12,931	9,039	9,992	7,778	9,869	7,357	10,743	8,815	5,672	3,982																																																																																																																																																																																																																																																																																																																																																																															
Head Grade	0.14	0.37	0.21	0.14	0.15	0.12	0.15	0.11	0.16	0.13	0.09	0.07																																																																																																																																																																																																																																																																																																																																																																															
<b>Magnetite</b>																																																																																																																																																																																																																																																																																																																																																																																											
Produced	1,659,696	45,088	228,395	170,052	172,897	236,274	234,340	178,857	131,405	121,816	91,837	48,734																																																																																																																																																																																																																																																																																																																																																																															
Head Grade	6.95	6.86	9.73	7.25	7.37	10.07	9.99	7.62	5.60	5.19	3.91	2.32																																																																																																																																																																																																																																																																																																																																																																															
Recovery	86.48	86.48	86.48	86.48	86.48	86.48	86.48	86.48	86.48	86.48	86.48	86.48																																																																																																																																																																																																																																																																																																																																																																															
<b>Commodity Prices</b>																																																																																																																																																																																																																																																																																																																																																																																											
Copper	7,742	7,030	7,553	7,621	7,669	7,771	7,851	7,878	7,906	7,933	7,961	7,986																																																																																																																																																																																																																																																																																																																																																																															
Cobalt	39,090	35,798	37,428	38,222	38,854	39,481	39,833	39,914	39,996	40,077	40,159	40,230																																																																																																																																																																																																																																																																																																																																																																															
Calc Sulphur	153	145	153	153	154	155	156	155	155	154	154	153																																																																																																																																																																																																																																																																																																																																																																															
Gold	1,603	1,515	1,614	1,637	1,635	1,633	1,632	1,619	1,606	1,594	1,582	1,571																																																																																																																																																																																																																																																																																																																																																																															
Magnetite	66	70	65	64	64	64	64	65	66	66	67	68																																																																																																																																																																																																																																																																																																																																																																															
Silver	23	20	21	22	22	22	23	23	24	24	24	24																																																																																																																																																																																																																																																																																																																																																																															
<p>Market Assessment</p>	<ul style="list-style-type: none"> <li>The status of agreements with key stakeholders and matters leading to social licence to</li> </ul>	<p>CuDeco has signed an offtake agreement for 60% of the sulphide concentrates, copper and cobalt/pyrite under normal smelter terms.</p> <p>CuDeco is in continuing negotiations regarding the remaining 40%. Also signed is an offtake agreement for up to 40,000 tonnes per</p>																																																																																																																																																																																																																																																																																																																																																																																									



	<p><i>operate.</i></p>	<p>annum of native copper metal with a Chinese smelter.</p> <p>A Heads of Agreement has been signed for an offtake for the fine magnetite by an Australian magnetite trader.</p>
Economic	<ul style="list-style-type: none"> <li><i>The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.</i></li> <li><i>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</i></li> </ul>	<ul style="list-style-type: none"> <li>A financial model was prepared using inputs generated in the Feasibility Study and summarised elsewhere in this Table.</li> <li>The Base Case inputs from the Feasibility Study generate a net present value of over A\$400 million after tax but excluding financing costs.</li> <li>Sensitivity cases were run on copper price, AUD/USD exchange rate, remaining capital costs, operating costs, copper head grade and recovery and cobalt head grade and recovery. Project is most sensitive to copper price and exchange rate but still maintains a strong positive NPV with adverse changes of 20% to the Feasibility Study Base case values.</li> <li>The financial model considers capital, operating and revenue cash flows from 1 July 2015 with production commencing in 2016. All costs prior to 1 July 2015 are treated as sunk.</li> </ul>
Social	<ul style="list-style-type: none"> <li><i>The status of agreements with key stakeholders and matters leading to social licence to operate.</i></li> </ul>	<p>Conduct and Compensation Agreement has signed with the landholder and remains in place for the 30-year life of the mining leases.</p> <p>Cultural Heritage Management Plans have been developed and signed with the two major indigenous groups which have claims over the land occupied by the mining leases. Ancillary (Native title) agreements have been signed with both groups and the Queensland government has signed the Section 31 Deed.</p> <p>Road use agreements have been signed with the Cloncurry Shire Council and with Transport and Main Roads, Queensland.</p>
Other	<ul style="list-style-type: none"> <li><i>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</i></li> <li><i>Any identified material naturally occurring risks.</i></li> <li><i>The status of material legal agreements and marketing arrangements.</i></li> <li><i>The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be</i></li> </ul>	<ul style="list-style-type: none"> <li>There are no identified material naturally occurring risks to the project, and/or the estimation and classification of the Ore Reserves, other than potential for adverse weather conditions including significant heat, rainfall and flood events. Site infrastructure has been designed to withstand 1 in 10,000 year rainfall event. Procedures are also in place to manage abnormal weather conditions and also high heat induced heat-stress in relation to staff exposure; processing equipment is rated to withstand the ambient heat conditions. Bore-water monitoring indicates that there is sufficient groundwater to sustain the project. Additional wet-season harvesting and a pipeline connecting to the town's waste-water supply will assist in mitigating any risk in this regard.</li> <li>There are no outstanding legal agreements that are likely to have a material impact on the Project.</li> <li>All necessary government approvals are in place. The mining leases have been granted for a 30-year period, The Environmental Authority has been issued and is up to date. An updated Plan of Operations has been submitted recently and there are no reasonable grounds to believe that it will not be approved within the statutory timeframe.</li> </ul>



	<p><i>reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.</i></p>																																										
<p>Classification</p>	<ul style="list-style-type: none"> <li><i>The basis for the classification of the Ore Reserves into varying confidence categories.</i></li> <li><i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></li> <li><i>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</i></li> </ul>	<ul style="list-style-type: none"> <li>Lack of geotechnical information for a small area on the western side of Rocklands South and over the Rainden pit has resulted in categorizing the Measured Mineral Resource in these areas as part of the Probable Ore Reserve.</li> <li>In all other areas the contributing experts have confirmed that the critical mining, metallurgical, infrastructure, cost, revenue, environmental, social and permitting assumptions are considered to be at a high level of confidence commensurate with Proved and Probable Ore Reserves. The confidence category applied to the Ore Reserves therefore corresponds with the category of the Mineral Resources. The estimated Proved Ore Reserves are the economically mineable part of the Measured Mineral Resources and the estimated Probable Ore Reserves are the economically mineable part of the Indicated Mineral Resources with the exception noted above.</li> </ul>																																									
<p>Audits or reviews</p>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of Ore Reserve estimates.</i></li> </ul>	<p>A Mine Schedule was generated based on the Reserve Estimate, and comparative analysis undertaken against internally generated schedules, with no areas of concern identified and good correlation of summary data observed. Other than this, no other audits or reviews have been conducted by Rocklands Staff on the Ore Reserve estimates, other than QAQC on input data, as covered in other areas of this table.</p>																																									
<p>Discussion of relative accuracy /confidence</p>	<ul style="list-style-type: none"> <li><i>Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a</i></li> </ul>	<p>Results from 5m composite sampling of high-resolution blast-hole drilling (3x3m or 3x4m grid) is correlating well with the Resource model, notwithstanding comparative fluctuations between different ore types.</p> <p>Results of Resource and Grade Control reconciliation to end June 2015:</p> <table border="1" data-bbox="864 1142 1933 1374"> <thead> <tr> <th colspan="7">Conversion of DIG PLAN to stockpiles (mining &amp; ore control)**</th> </tr> <tr> <th>Source/Destination</th> <th>TONNES</th> <th>Cu%</th> <th>Co ppm</th> <th>Au g/t</th> <th>Mag %</th> <th>Spec_CuEq%</th> </tr> </thead> <tbody> <tr> <td><b>Dig-plans</b></td> <td>2,277,747</td> <td>1.02</td> <td>546</td> <td>0.17</td> <td>2.65</td> <td>1.09</td> </tr> <tr> <td><b>Stockpiles</b></td> <td>2,247,410</td> <td>1.03</td> <td>534</td> <td>0.16</td> <td>2.76</td> <td>1.04</td> </tr> <tr> <td>Mining loss (ore loss):</td> <td>-1.33%</td> <td>loss</td> <td colspan="4" rowspan="3">** in the absence of production data, grades and tonnes should be treated as estimates.</td> </tr> <tr> <td>Mining dilution (grade loss):</td> <td>0.92%</td> <td>gain</td> </tr> <tr> <td><b>Overall metal factor:</b></td> <td><b>99.57%</b></td> <td></td> </tr> </tbody> </table>	Conversion of DIG PLAN to stockpiles (mining & ore control)**							Source/Destination	TONNES	Cu%	Co ppm	Au g/t	Mag %	Spec_CuEq%	<b>Dig-plans</b>	2,277,747	1.02	546	0.17	2.65	1.09	<b>Stockpiles</b>	2,247,410	1.03	534	0.16	2.76	1.04	Mining loss (ore loss):	-1.33%	loss	** in the absence of production data, grades and tonnes should be treated as estimates.				Mining dilution (grade loss):	0.92%	gain	<b>Overall metal factor:</b>	<b>99.57%</b>	
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<p><i>qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.</i></p> <ul style="list-style-type: none"> <li><i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></li> <li><i>Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.</i></li> <li><i>It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></li> </ul>	<table border="1"> <thead> <tr> <th colspan="7">Conversion of RESOURCE to digplans (grade control)**</th> </tr> <tr> <th>Source/Destination</th> <th>TONNES</th> <th>Cu%</th> <th>Co ppm</th> <th>Au g/t</th> <th>Mag %</th> <th>Spec_CuEq%</th> </tr> </thead> <tbody> <tr> <td><b>Resource</b></td> <td>1,973,532</td> <td>1.19</td> <td>565</td> <td>0.18</td> <td>6.05</td> <td>1.27</td> </tr> <tr> <td><b>Dig plan</b></td> <td>2,277,747</td> <td>1.02</td> <td>546</td> <td>0.17</td> <td>2.65</td> <td>1.09</td> </tr> <tr> <td>Ore gain/loss:</td> <td>15.41%</td> <td>gain</td> <td colspan="4" rowspan="3">** in the absence of production data, grades and tonnes should be treated as estimates.</td> </tr> <tr> <td>Grade gain/loss:</td> <td>-14.60%</td> <td>loss</td> </tr> <tr> <td><b>Overall metal factor:</b></td> <td><b>98.56%</b></td> <td></td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="7">Conversion of RESOURCE to stockpiles (grade control, mining &amp; ore control)**</th> </tr> <tr> <th>Source/Destination</th> <th>TONNES</th> <th>Cu%</th> <th>Co ppm</th> <th>Au g/t</th> <th>Mag %</th> <th>Spec_CuEq%</th> </tr> </thead> <tbody> <tr> <td><b>Resource</b></td> <td>1,973,532</td> <td>1.19</td> <td>565</td> <td>0.18</td> <td>6.05</td> <td>1.27</td> </tr> <tr> <td><b>Stockpiles</b></td> <td>2,247,410</td> <td>1.03</td> <td>534</td> <td>0.16</td> <td>2.76</td> <td>1.04</td> </tr> <tr> <td>Ore gain/loss:</td> <td>13.88%</td> <td>gain</td> <td colspan="4" rowspan="3">** in the absence of production data, grades and tonnes should be treated as estimates.</td> </tr> <tr> <td>Grade gain/loss:</td> <td>-13.82%</td> <td>loss</td> </tr> <tr> <td><b>Overall metal factor:</b></td> <td><b>98.14%</b></td> <td></td> </tr> </tbody> </table> <p>Internal audits consisted of the following:</p> <ul style="list-style-type: none"> <li><b>Grade:</b> Grade estimates are undertaken using Cube Consulting's Surpac based, macro-driven estimation programme (GCX) and were interrogated using an in-house Excel-based averaging method, with good correlation between the two separately estimated data sets.</li> <li><b>Tonnes</b> Four points of agreement were interrogated, including pit-survey volume, stockpile survey volume, mining truck logs and geologist spotters truck logs. All data showed good correlation, with less than 5% differences between each. Independently undertaken stockpile survey audit also correlated well with in-house surveys.</li> </ul>	Conversion of RESOURCE to digplans (grade control)**							Source/Destination	TONNES	Cu%	Co ppm	Au g/t	Mag %	Spec_CuEq%	<b>Resource</b>	1,973,532	1.19	565	0.18	6.05	1.27	<b>Dig plan</b>	2,277,747	1.02	546	0.17	2.65	1.09	Ore gain/loss:	15.41%	gain	** in the absence of production data, grades and tonnes should be treated as estimates.				Grade gain/loss:	-14.60%	loss	<b>Overall metal factor:</b>	<b>98.56%</b>		Conversion of RESOURCE to stockpiles (grade control, mining & ore control)**							Source/Destination	TONNES	Cu%	Co ppm	Au g/t	Mag %	Spec_CuEq%	<b>Resource</b>	1,973,532	1.19	565	0.18	6.05	1.27	<b>Stockpiles</b>	2,247,410	1.03	534	0.16	2.76	1.04	Ore gain/loss:	13.88%	gain	** in the absence of production data, grades and tonnes should be treated as estimates.				Grade gain/loss:	-13.82%	loss	<b>Overall metal factor:</b>	<b>98.14%</b>	
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## 1.4 RESOURCE AND RESERVE CATEGORIES – EXPLANATION

According to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code) 2012 Edition:-

A 'Mineral Resource' is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.

An 'Inferred Mineral Resource' is that part of a Mineral Resource for which quantity and grade (or quality) are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade (or quality) continuity. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.

An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to an Ore Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

An 'Indicated Mineral Resource' is that part of a Mineral Resource for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit.

Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes, and is sufficient to assume geological and grade (or quality) continuity between points of observation where data and samples are gathered.

An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Ore Reserve.

A 'Measured Mineral Resource' is that part of a Mineral Resource for which quantity, grade (or quality), densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit.

Geological evidence is derived from detailed and reliable exploration, sampling and testing gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes, and is sufficient to confirm geological and grade (or quality) continuity between points of observation where data and samples are gathered.

A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proved Ore Reserve or under certain circumstances to a Probable Ore Reserve.

An 'Ore Reserve' is the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre-Feasibility or Feasibility level as



appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified.

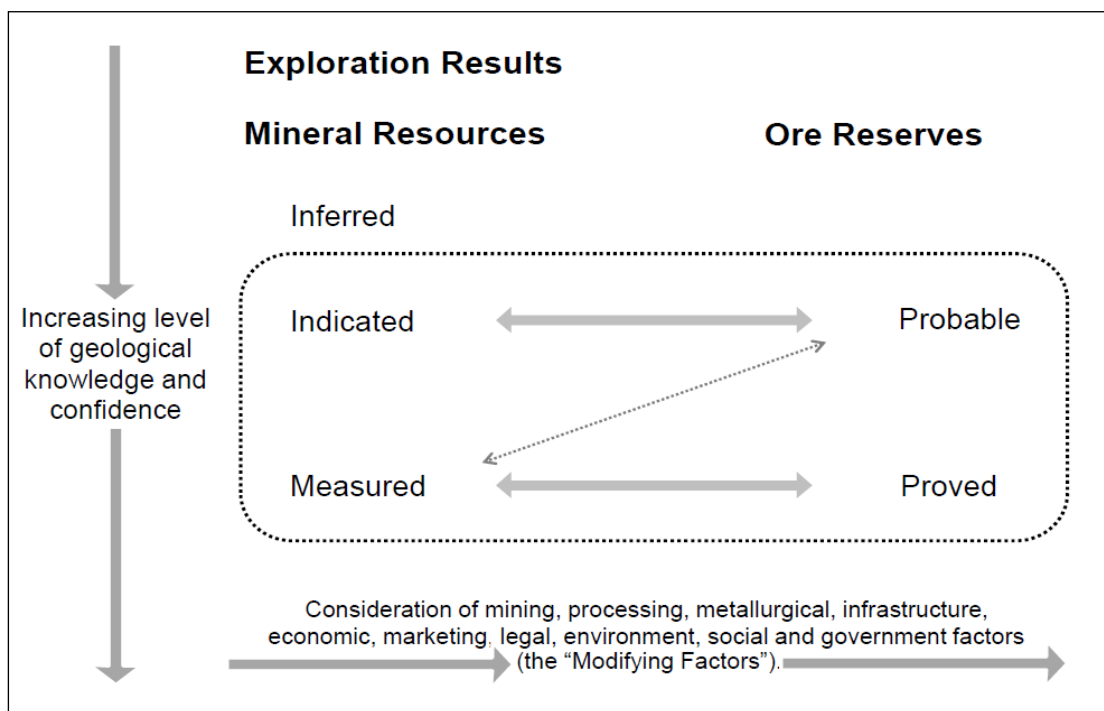
The guidelines in the JORC Code state that the term ‘economically mineable’ implies that extraction of the Ore Reserves has been demonstrated to be viable under reasonable financial assumptions. This will vary with the type of deposit, the level of study that has been carried out and the financial criteria of the individual company. For this reason, there can be no fixed definition for the term ‘economically mineable’.

A ‘Probable Ore Reserve’ is the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource. The confidence in the Modifying Factors applying to a Probable Ore Reserve is lower than that applying to a Proved Ore Reserve.

A ‘Proved Ore Reserve’ is the economically mineable part of a Measured Mineral Resource. A Proved Ore Reserve implies a high degree of confidence in the Modifying Factors.

The guidelines provided in the JORC Code note that “A Proved Ore Reserve represents the highest confidence category of reserve estimate and implies a high degree of confidence in geological and grade continuity, and the consideration of the Modifying Factors. The style of mineralisation or other factors could mean that Proved Ore Reserves are not achievable in some deposits.”

The following figure, from the JORC Code, sets out the framework for classifying tonnage and grade estimates to reflect different levels of geological confidence and different degrees of technical and economic evaluation.



**Figure 1 General relationship between Exploration Results, Mineral Resources and Ore Reserves, from 2012 JORC Code Figure 1**

Mineral Resources can be estimated on the basis of geoscientific information with some input from other disciplines. Ore Reserves, which are a modified sub-set of the Indicated and Measured Mineral



Resources (shown within the dashed outline in the Figure above), require consideration of the Modifying Factors affecting extraction, and should in most instances be estimated with input from a range of disciplines.

Measured Mineral Resources may be converted to either Proved Ore Reserves or Probable Ore Reserves. The Competent Person may convert Measured Mineral Resources to Probable Ore Reserves because of uncertainties associated with some or all of the Modifying Factors which are taken into account in the conversion from Mineral Resources to Ore Reserves.

Inferred Resources cannot convert to Ore Reserves.