

ACN. 000 317 251

MARKET RELEASE

3rd March 2016

ROCKLANDS GROUP COPPER PROJECT (CDU 100%)

ROCKLANDS FEASIBILITY STUDY

Cloncurry mining company CuDeco Limited (ASX:CDU) is pleased to release the Rocklands Feasibility Study for its 100% owned Rocklands Group Copper Project. The Rocklands Feasibility Study considers the Stage-1, 10-year mine plan, which is part of a multi-stage development plan for the project.

Highlights of the Stage-1, 10-year mine plan:

• Project revenue: \$1,930 million

Operating costs: \$1,299 million

(includes mining, processing, transport, general and administration, treatment and refining charges, sales costs and royalties)

- Net free cash-flow from operations: \$631 million
 - Remaining capex spend: \$64 million
 - NPV_{8%} (after tax, and after remaining capex): \$405 million

The Rocklands Feasibility Study was prepared for CuDeco Limited (**CuDeco**) by Mining Associates Pty Ltd and is referenced by the December 2015 Reserve Statement for the Rocklands Group Copper Project (**Rocklands**), prepared by Australian Mine Design and Development. The Feasibility Study (**Report**) draws on the numerous studies and reports undertaken by and for CuDeco and covers the Stage-1, 10 year mine plan, which is the initial phase of a multi-stage development and production strategy for Rocklands and is likely to extend beyond the 10 years covered by this Report.

The Report is prepared with the level of detail and structure of a mining project feasibility study and has been reviewed by independent recognised industry professionals, including technical due diligence in the areas of geology, engineering, metallurgy and finance.

Rocklands is a multi-lode copper-cobalt-gold (including native copper) deposit with associated magnetite of the Iron Oxide Copper Gold ("IOCG") style, located in the Eastern Fold Belt of the Mt Isa Inlier, and about 17km northwest of Cloncurry, Queensland, Australia.

Trial mining commenced in 2012 and to the end of June 2015 a total of 13.8 million tonnes of ore and waste had been excavated, with an estimated 2.2 million tonnes of ore stockpiled and ready for processing. Trial mining confirmed the robustness of the resource model and generally contributed to increased geological knowledge, significantly de-risking aspects of the project. Trial mining activity continued from the end of June 2015 until it was temporarily suspended in August 2015. The Report is based on pit and stockpile survey and audits to end June 2015, as such ore mined subsequent to this period has neither been added to stockpiles, nor depleted from Reserves.

The Report notes that grade underestimation of copper has been identified during resource drilling and mining, within ore zones containing coarse native copper, and may result in additional copper output over the mine life should this be confirmed from production reconciliation. This upgrade option is not included in this study.

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Rocklands was approximately 90% complete as of December 2015, at which point approximately \$573 million had been invested. An additional \$64 million is estimated for the project to reach practical construction completion, including working capital and other corporate requirements.

Commenting on the Feasibility Study, CuDeco Managing Director Peter Hutchison said: "In the absence of a Feasibility Study, in-house estimates have been used for mining, processing, marketing, environment, community and financial modelling. The Feasibility Study provides confirmation via independent technical due diligence that our current modelling is appropriate and the project is not only viable but will generate considerable cash flow from this point forward."

"When the original decision was made to develop Rocklands it was a very different environment, so it is pleasing to see that in spite of the currently challenging commodity pricing environment, Rocklands remains a robust project."

CuDeco's Independent Non-Executive Chairman, Dr Noel White said: "The Feasibility Study is an important document, it assesses the viability of Rocklands to a very high level of detail. The Feasibility Study assumes an accuracy of -5% to +15% for operating cost estimates, and +/-10% for capital cost estimates for the mine, processing plant and associated project infrastructure. This level of accuracy provides the Board with a very high degree of confidence going forward."

"The release of the Feasibility Study greatly enhances project transparency, and will ultimately underpin anticipated interest in the planned Rights Issue."

Table 1: Key Economic Parameters

Parameter	Unit	Value
Average LOM Mill feed	Mtpa	2.74
Average LOM Head Grade	Cu eq %*	0.90
Average LOM head Grade	Cu %	0.71
Average LOM Production	Cu eq tpa	25,319
Average LOM Production	Cu tpa	18,347
Mine Life	Years	10**
C1 LOM Cash Costs Cu eq	A\$/lb of CuEq	1.13
Initial Capital Invested	A\$M	637.4
LOM Sustaining Capital	A\$M	42.2
Net Profit LOM after tax and net of depreciation	A\$M	112
NPV before Tax @ 8 %***	A\$M	465
NPV after Tax @ 8 %***	A\$M	405
IRR after tax	%	0.2
LOM Exchange rate (average)	AUD/USD	0.711

^{* -} copper equivalent includes cobalt, gold and magnetite, see Section 15, JORC Table 1 for details of this calculation.

^{** -} Based on resources the mine life is expected to be extended

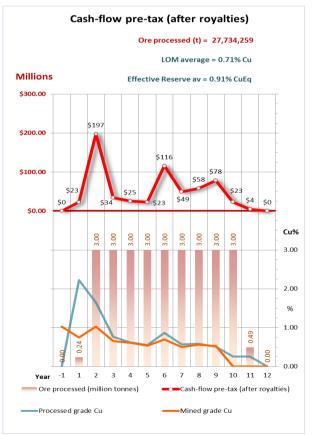
^{*** -} NPV excludes any debt repayments and/or funding revenue/payments



Table 2: Project Cost Estimates

Cost Category	AU (\$000's)	AUD (\$000's)	AU (\$000's)
Project Pre- Development Costs (Including Exploration up to granting of Mining Leases)			83,764
Capital Costs of Project Construction (from granting of Mining Lease to December 2015:			
Process Plant		276,901	
Land & Buildings		16,962	
Other Plant & Equipment and Mining Assets		46,268	
Mine Development Expenditure			
Overburden removed	62,628		
Cost of Ore Stockpiles	17,590		
Environmental rehabilitation provision	6,246		
Corella Park and Burke Roads construction	3,116		
Tails Dam	5,234		
Costs of Infrastructure assets	54,960		
Total Mine Development Expenditure		149,774	
Total Project Capital Costs to December 2015			489,905
Estimated Capital and Operating Costs to surplus cash flow			63,726
Total Estimated Costs (from the Commencement of Exploration to the Completion of the Project)			637,396

Figure 1: Mining & processing (tonnes and grade) and revenue (left); and net cash-flow by product and NPV analysis (right)



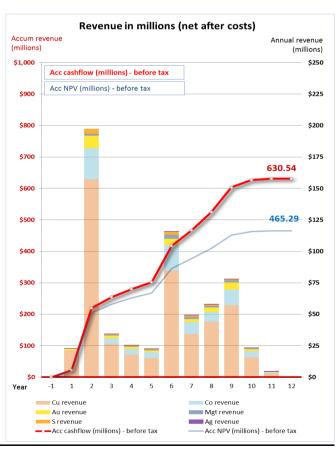
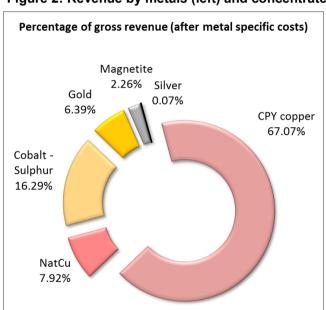


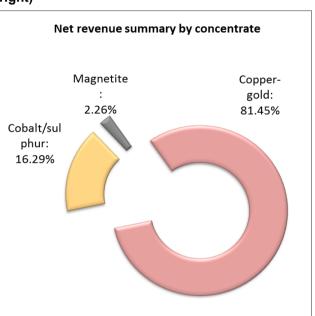


Table 3: Cash-flow pre-tax (after Royalties)

Cash-flow pre-tax (after royalties)	(AUD 000's)
Total sales revenue	1,929,804
Royalty (on total sales - variable)	(80,045)
Operating costs (mine, process, transport);	(921,037)
General Administration Rocklands (Total LOM)	(66,438)
Treatment costs (TC) @ \$0.199 per pound CuEq	(96,902)
Refining costs (RC) @ \$0.244 per pound CuEq	(134,845)
Net cash-flow (does not include debt repayment, financing in-flows, or loan share revenue)	630,536
Total dividend (based on 100% Net cash-flow) per share (pre tax/after royalties) LOM =	1.90
Total dividend (based on 100 % Net cash-flow) per share (after tax/after royalties) LOM =	1.85

Figure 2: Revenue by metals (left) and concentrate (right)





The principal consultants (and associated inputs) were as follows;

Mineral Resources: Mining Associates (MA)/CuDeco
 Mine and Site Geotechnical: CuDeco/Pell Sullivan Melnick (PSM)

Mine Design and Ore Reserves: CuDeco/Australian Mine Design (AMDAD)
 Metallurgical testwork: CuDeco and others under CuDeco direction

Process design: Sinosteel (NERIN)/CuDeco
 Plant and infrastructure: Sinosteel (NERIN)/CuDeco

Project Infrastructure: CuDeco/ATC Williams (ATCW)/Knights Piesold (KP)

Tailings storage facility: CuDeco/KP/ATCW

Hydrology: CuDeco/KP

Capital and Operating Costs: CuDeco/Sinosteel



Table 4: Life of Mine Operating Costs (\$000's)

Cost Category	(\$000's)	Unit Cost (\$/t mined)	Unit Cost (\$/t milled)
Mining			
Grade Control and Assay	21,054	\$0.15	\$0.76
Mining Overheads/Administration (inc Survey)	66,781	\$0.47	\$2.41
Maintenance	99,258	\$0.70	\$3.58
Dig and Load	38,706	\$0.27	\$1.40
Stockpile to ROM	5,543	\$0.04	\$0.20
Drill and Blast	99,040	\$0.70	\$3.57
Haulage	105,463	\$0.74	\$3.80
Total Mining	435,845	\$3.06	\$15.72
Processing			
Power	174,076		\$6.28
Op Labour	90,056		\$3.25
Maintenance (Capital replacement)	21,586		\$0.78
Maint Labour	23,750		\$0.86
Consumables	56,496		\$2.04
Lab Assays	2,924		\$0.11
Total Processing	368,888		\$13.30
Subtotal	804,733		\$29.02
General & Administration	66,438		\$2.40
Transportation	116,305		\$4.19
Royalties	80,046		\$2.89
TC/RC	231,747		\$8.36
Contingency	-		\$0.00
Subtotal	494,535		\$17.83
Total Operating Costs	1,299,268		\$46.85

Table 5: Commodity and Forex pricing

		Forex & Commodity pricing							Weighted LOM			
	Year	1	2	3	4	5	6	7	8	9	10	average
Forex (AUD/US)	AUD/USD	0.715	0.720	0.720	0.714	0.711	0.710	0.706	0.702	0.699	0.695	0.711
Cu/lb	US\$	\$2.19	\$2.30	\$2.46	\$2.42	\$2.52	\$2.79	\$2.84	\$2.90	\$2.95	\$3.01	\$2.63
Co/lb	US\$	\$11.90	\$12.22	\$14.05	\$14.66	\$14.71	\$14.98	\$15.27	\$15.52	\$15.79	\$16.01	\$14.60
S/te	US\$	\$115.00	\$117.91	\$126.82	\$132.33	\$132.82	\$135.28	\$137.92	\$140.10	\$142.57	\$144.57	\$132.78
Au/oz	US\$	\$1,138	\$1,138	\$1,066	\$1,058	\$1,049	\$1,041	\$1,033	\$1,024	\$1,016	\$1,008	\$1,054
DMS Mag/te	A\$	\$45.00	\$45.99	\$49.06	\$51.19	\$53.46	\$55.78	\$58.25	\$60.82	\$63.44	\$66.25	\$54.29
Ag/oz	US\$	\$14.50	\$14.61	\$14.42	\$14.64	\$14.86	\$15.10	\$15.30	\$15.50	\$15.80	\$16.00	\$14.98
Diesel (less DFR) per It	A\$	\$0.67	\$0.60	\$0.83	\$0.87	\$0.91	\$0.95	\$1.00	\$1.05	\$1.10	\$1.15	\$0.91



Sensitivity analysis of NPV has been carried out on the financial model to the following:

- 20% variance in copper price
- 20% variance in USD/AUD exchange rate
- 10% variance in site cash opex (operational costs)
- 10% variance in total capital costs.
- 10% variance in Cu and Co Grade and Recovery

Table 6: Sensitivity Analysis - Base NPV +/- 20%

Sensitivity	\$	Copper Price	USD/AUD Ex Rate
-20%	\$M	211	620
Base	\$M	405	405
+20%	\$M	558	221

Table 7: Sensitivity Analysis - Base NPV +/- 10%

Sensitivity	\$	Site Cash Opex	Total Capital Costs	
-10%	\$M	441	410	
Base	\$M	405	405	
+10%	\$M	367	400	



Sensitivity Analysis - NPV to Cu & Co Grade and Recovery

	Сор	per		Cobalt			
Gra	ide	Recovery		Grad	е	Recovery	
Cu Grade %	NPV \$M	Cu Rec %	NPV \$M	Co Grade ppm	NPV \$M	Co Rec %	NPV \$M
0.64	327	86	312	320	393	81	388
0.71	405	95	405	357	405	90	405
0.79	471	N/A	N/A	392	416	N/A	N/A



On behalf of the Board.

-ends

Rocklands Feasibility Study Executive Summary follows...





Executive Summary Feasibility Study Rocklands Group Copper Project Queensland, Australia



Prepared for CuDeco Limited

By Mining Associates

Publish Date: 3 March 2016

Effective Date (Resources): 30 June 2015 Effective Date (Reserves): 31 December 2015

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Table of Contents

1	EXECUTIVE SUMMARY					
1.1	INT	RODUCTION	4			
1.2		PE				
1.3	RES	DURCE AND RESERVES	7			
1.4	MIN	E METHOD				
	1.4.1	Waste rock characterisation				
1.5	MET	ALLURGY AND PROCESS PLANT OVERVIEW				
	1.5.1	Metallurgical Testwork and Design				
	1.5.2	Process Overview	12			
	1.5.3	Process Flowsheet				
1.6	PRO	JECT INFRASTRUCTURE	_			
	1.6.1	Accommodation	16			
	1.6.2	Maintenance Facilities	16			
	1.6.3	Explosives Infrastructure and Magazines				
	1.6.4	Raw Water Supply and Storage				
	1.6.5	Potable Water Supply, Treatment and Dispersal	17			
	1.6.6	Power Supply	17			
	1.6.7	Tailings Storage and Management	18			
1.7	ENV	IRONMENTAL	18			
	1.7.1	Plan of Operations	18			
	1.7.2	Environment licencing	18			
	1.7.3	Environmental Approvals – Rocklands	18			
1.8	FINA	NCIAL	20			
	1.8.1	Capital costs	22			
	1.8.2	Sustaining Capital	23			
	1.8.3	Working Capital	23			
	1.8.4	Operating cost	23			
	1.8.5	Cash Flow and NPV	24			
	1.8.6	Sensitivities	26			
1.9	PRO	JECT IMPLEMENTATION AND SCHEDULE	27			
1.10	RISK	ANALYSIS	30			
1.11	JOR	C TABLE 1	35			
	1.11.1	JORC Table 1 - Section 1 - Sampling Techniques and Data	35			
	1.11.2	JORC Table 1 - Section 2 - Reporting of Exploration Results	40			
	1.11.3	JORC Table 1 - Section 3 - Estimation and Reporting of Mineral Resources	43			
	1.11.4	JORC Table 1 - Section 4 - Estimation and Reporting Ore Reserves				



Caveat Lector

This Executive Summary from the Rocklands Feasibility Study Report has been prepared for CuDeco Limited (CuDeco) by Mining Associates Limited (MA), based on assumptions as identified throughout the text and upon information and data supplied by others.

The Report is to be read in the context of the methodology, procedures and techniques used, MA's assumptions, and the circumstances and constraints under which the Report was written. The Report is to be read as a whole, and sections or parts thereof should therefore not be read or relied upon out of context.

MA has, in preparing the Report, followed methodology and procedures, and exercised due care consistent with the intended level of accuracy, using its professional judgment and reasonable care. However, no warranty should be implied as to the accuracy of estimates or other values and all estimates and other values are only valid as at the date of the Report and will vary thereafter.

Parts of the Report have been prepared or arranged by CuDeco or third party contributors, as detailed in the document. While the contents of those parts have been generally reviewed by MA for inclusion into the Report, they have not been fully audited or sought to be verified by MA. The list of references and authors at the end of this report lists the sources consulted. MA is not in a position to, and does not, verify the accuracy or completeness of, or adopt as its own, the information and data supplied by others and disclaims all liability, damages or loss with respect to such information and data.

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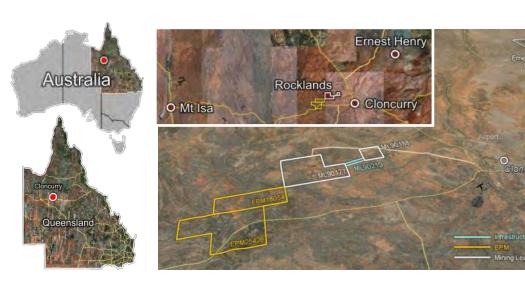


1 EXECUTIVE SUMMARY

1.1 INTRODUCTION

The Rocklands Group Copper Project ("Rocklands" or "Project") is a multi-lode high grade copper-cobalt-gold (including native copper) deposit with associated magnetite of the Iron Oxide Copper Gold ("IOCG") style located in the Eastern Fold Belt of the Mt Isa Inlier about 17 km northwest of Cloncurry, Queensland, Australia. This Feasibility Study covers the Stage-1 10 year mine plan, which is the initial phase of a multi-stage development and production strategy for the Project which is likely to extend beyond the 10 years.

The Project design comprises of two main open pits, a third smaller production pit, and an infrastructure pit located in an ore zone, which will deliver ore to an adjacent 3 million tonne per annum processing plant and associated infrastructure. The Project is 100% owned by CuDeco Limited ("CuDeco", ASX: CDU), an ASX listed company headquartered in Southport, Queensland, Australia. The Project comprises three Mining Leases totalling 1956.5 hectares and two adjacent exploration licences (EPM18054 and EPM25426). Mining lease ML90177 covers the known resource areas, process plant site and supporting infrastructure, ML 90188 covers the tailings storage facility and ML90219 is a transport corridor linking the two.



Rocklands Project Tenements and Location

CuDeco have been trial mining the deposit since 2012 during which a total of 13.8 Mt of ore and waste has been excavated with an estimated 2.2 Mt of ore stockpiled, ready for processing. This has confirmed the robustness of the resource model and generally contributed to increased geological knowledge, significantly de-risking aspects of the project

Potential for grade underestimation of copper has been identified during resource drilling and mining, within ore zones containing coarse native copper, and may result in additional copper output over the mine life should this be confirmed from production reconciliation. This upgrade option is not included in this study.

Initial capital construction and working-capital cost requirements are estimated at \$637 million. The Rockland project is approximately 90% complete as of December 2015, at which point approximately \$573 million has been invested to date and CuDeco estimate that an additional \$64 million is required for the project to reach practical construction completion, including working capital and other corporate requirements. All dollars are Australian dollars unless notarised.



1.2 SCOPE

MA was commissioned by Mr Peter Hutchison of CuDeco in November 2015 to undertake coordination and preparation of this Study. MA's scope of work included the following areas:

- Oversight and coordination of Rocklands Group Copper Project Feasibility Study
- Review of existing study information (by recognised professionals)
- Preparation of the Feasibility Study document from information provided by CuDeco and other sub consultants nominated by CuDeco

The principal consultants and inputs are as follows (with abbreviations as used throughout):

- Mineral Resources: Mining Associates (MA)/CuDeco
- Mine and Site Geotechnical: CuDeco/Pell Sullivan Melnick (PSM)
- Mine Design and Ore Reserves: CuDeco/Australian Mine Design (AMDAD)
- Metallurgical testwork: CuDeco and others under CuDeco direction
- Process design: Sinosteel (NERIN)/CuDeco
- Plant and infrastructure: Sinosteel (NERIN)/CuDeco
- Project Infrastructure: CuDeco/ATC Williams (ATCW)/Knights Piesold (KP)
- Tailings storage facility: CuDeco/KP/ATCW
- Hydrology: CuDeco/KP
- Capital and Operating Costs:CuDeco/Sinosteel

This report is prepared with the level of detail and structure of a mining project feasibility study and to ensure sufficient contingency provisions have been made for those areas where further investigation is required.

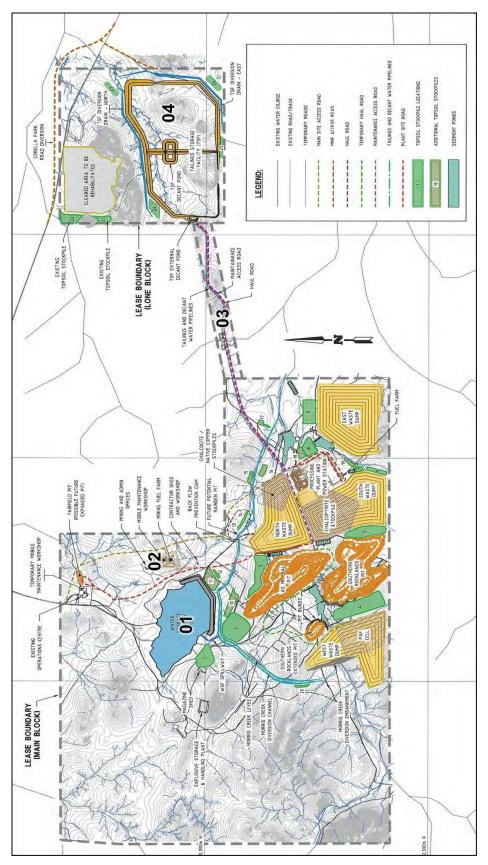
In relation to the report itself, the following assumptions and comments are relevant:

- The level of accuracy of the component capital parts of the report can be considered as good, given that CuDeco are 90 % complete on the project, which includes all mining mobilisation, process plant and associated project infrastructure.
- In CuDeco's view, the report has reached the level of detail sufficient for a final feasibility study in key study areas of Mineral Resource and Mineral Reserve estimates, and the development of subsequent Life of Mine operational plans.
- In CuDeco's view, the report has reached the level of detail considered to be to an accuracy of 5 % to +15 % for the operating and +/- 10 % for the capital cost estimates for the mine, processing plant and associated project infrastructure.
- At the end of the December 2015 quarterly report some 13.8 Mt of material has been mined as ore
 and waste from the production pits. To the end of June 2015 there was some 2.2 Mt of ore
 stockpiled that is ready for treatment through the process plant.
- The crushing circuit has been commissioned and modifications are occurring to improve efficiency before commissioning of the remainder of the 3 Mtpa process plant.
- A total 21,972 tonne of ore (Copper head grade 1.36 %, recovery 82.64 % to a concentrate grade 29.13 %) was processed via a tolling arrangement through the Ernest Henry Mine in November 2014. The results are considered to be excellent for a short-duration commissioning ore trial.

A 750 tonne per month copper casting plant for the native copper has been successfully commissioned.

The following figure depicts the overall Rocklands project site.





General Rocklands Project Site Layout

1.3 RESOURCE AND RESERVES

The total mineral resource is based on the November 2013 Mineral Resource Estimate for Rocklands prepared by MA, restated using the surface levels as at 30 June 2015 and to allow for both open pit and underground mining, with copper equivalent calculations (CuEq and CuCoAu) changed to match updated commodity price forecasts as used for reserve definition. The mineral resource is reported inclusive of in situ ore reserves, but excludes mined material (stockpiles) and is presented in the table below:

Cut-off grade¹ **Estimated Grade** Copper Equivalents Contained Metal Equivalent CuCoAu² CuCoAu2 Resource Assumed CuCoAu2 Cu Tonnes Mag CuEa Cu % Mt % % Mlb Mlb Mlb category mining method ppm ppm % 0.2 0.1 0.64 309 0.14 0.9 1.0 544 729 814 Measured 38.4 5.8 Open pit Underground 0.6 0.1 1.36 366 0.22 2.0 1.7 39 47 48 39.7 0.67 5.7 0.9 582 776 862 Sub Total 311 0.14 1.0 Indicated 0.2 0.1 9.4 0.35 252 0.1 0.5 0.6 71 108 132 6.7 Open pit Underground 0.6 0.1 7.0 0.92 257 0.23 1.1 1.2 142 178 181 1.2 Sub Total 16.4 0.59 255 0.16 4.4 0.8 0.9 213 286 313 0.2 0.1 47.7 0.58 298 0.13 6.01 0.80 0.90 615 837 946 Open pit Underground 0.6 0.1 0.99 274 0.23 1.29 1.23 1.25 180 224 228 56.0 0.86 0.95 796 1062 1175 **Total Measured and Indicated** 0.64 295 0.15 5.31 Inferred Open pit 0.2 0.1 0.2 0.36 203 0.14 4.9 0.5 0.6 0.75 249 0.26 1.0 1.0 7 9 a Underground 0.6 0.1 0.4 1.3 0.21 12 0.6 232 0.8 0.9 8 11 Sub Total 0.60 2.7 Total 0.2 0.1 48.0 0.58 298 0.13 0.8 0.9 617 840 950 6.0 Open pit Underground 0.1 8.7 0.98 273 0.23 1.2 1.2 187 233 237 56.7 294 0.15 0.9 1.0 804 1073 1187 Total Measured, Indicated & Inferred 0.64 5.3

Copper Resource - Combined Open Pit and Underground at 30 June 2015.

In addition, and within the same open pit is a magnetite resource where both copper and CuCoAu grades are below cut-off, but magnetite is of sufficient grade to be mineable in its own right (i.e. >10% magnetite). This is an open pit only resource and will be stockpiled available for treatment at the end of mine life, dependent on metal prices at the time.

Additional Magnetite Resource – Open Pit only as at 30 June 2015

Resource	Cut-off	Tonnes	Estimated Grade	Contained Metal
category	Mag		Mag	Magnetite
	%	Mt	%	Mt
Measured	10	0.3	11.4	0.04
Indicated	10	0.1	19.6	0.02
Inferred	10	177.9	15.1	26.95
Tot	:al	178.3	15.1	27.0

Total material within the Whittle shell 49 is 606 Mt. The total of Open Pit resources (copper plus magnetite-only) is 235 Mt.

The Maiden Ore Reserve Estimate was prepared by Australian Mine Design and Development (AMDAD). The Ore Reserve is based on a 10-year open pit only mine plan also prepared by AMDAD. The ore reserves were released to the market on 11th December 2015. The current operating plan for the Project is to mine the deposit via open cut methods and direct feed process for 7-8 years with process only from stockpiles for the last 2-3 years. There is scope to extend the mine life from existing resources, in particular underground access which has not been considered for this study.

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

¹ Block grade has to meet both cut-off grade criteria to be reported (eg CuCoAu > 0.2 AND Cu > 0.1)

² Copper equivalent CuCoAu% = Cu % + Co ppm*0.000533 + Au ppm*0.431743

³ Copper equivalent CuEq% = Cu % + Co ppm *0.000533 + Au ppm *0.431743 + magnetite %*0.016711



Rocklands Copper Project Ore Reserves as at 31 December 2015

Reserve Category	Ore Type	Million Tonnes	% Copper	ppm Cobalt	g/t Gold	% Magnetite	% CuEq**
	ОХ	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
D	NC_CPY	2.0	0.93	617	0.15	3.8	1.16
Proved*	СС	0.3	0.82	311	0.18	3.5	0.91
	СРҮ	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
	ОХ	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
Dualaalala	NC_CPY	0.5	0.66	267	0.11	2.9	0.74
Probable	СС	0.1	0.47	266	0.11	2.8	0.53
	СРҮ	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
	ОХ	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
Proved and	NC_CPY	2.5	0.88	548	0.14	3.6	1.08
Probable	СС	0.4	0.75	302	0.17	3.4	0.83
	СРҮ	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

Note: Ore Reserve Estimate includes stockpiled ore of 2.2 Mt up to the end of December 2015 and ore remaining in the designed open pits after this date.

Some revisions were made to the Feasibility Study after release of the Ore Reserves in December 2015. These were checked by AMDAD. The only change noted which impacts on selection of ore and waste is an increase to the processing cost. AMDAD ran an Ore Reserves report using the increased processing cost. The decrease in ore tonnes is less than 0.5% and the decrease in contained copper is less than 0.15%. AMDAD does not consider these changes to be material. Project cash flow model still show the project to be commercially viable with a reduction in net present value of less than 0.2%. On these bases AMDAD does not consider a revision to the published Ore Reserves to be warranted at this time.

1.4 MINE METHOD

The planned mining method for Rocklands is a conventional open pit truck and shovel operation, using 180t and 190t class hydraulic excavators, in backhoe configuration, and 90t dump trucks. Drilling and blasting is conducted on 10 m high benches. Digging is conducted on flitches of 2.5 m height in the ore and up to 5 m high in bulk waste blocks. CuDeco currently owns and operates its own Mining fleet. Proposals for a 'Dry Hire' Leased Fleet have been sought and are currently being assessed to compare costs with current fully owned and maintained fleet.

^{*} Proved ore includes stockpiled material of 2.2 Mt.

^{**} CuEq - refer to ore reserve press release and Section Error! Reference source not found..



At the end of the December 2015 quarterly report some 13.8 Mt of material has been mined of ore and waste from the production pits. To the end of June 2015 there was some 2.2 Mt of ore stockpiled that is ready for treatment through the process plant.

The open pit designs are based on the slope angles from geotechnical recommendations, shells from pit optimisation, and suitable haul ramps (grade, width and switchback radius) for Komatsu HD785 90 tonne payload rigid dump trucks.

Pit optimisation has been completed by AMDAD, using the Whittle suite of optimisation software. Ranges of parameters were applied by CuDeco as summarised below (all in AUD unless specified):

- Mining Costs A\$2.50/t of mined material plus a A\$0.10/t increment for every 10 m vertical depth.
- Pit slopes inter-ramp angles ranging from 34⁰ to 51⁰.
- Process Costs A\$12.81/t of mill feed
- Processing Limit 3.0 Mtpa
- Discount Rate 5%

Total

- Metal Prices Cu A\$3.84/lb, Co A\$18/lb and Au A\$1,200/oz.
- Recommended pit slope designs were initially recommended by PSM in December 2011. After a site visit by PSM in 2014, a slight revision was made to the initial PSM's slope components.

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

- The resource model prepared by Mining Associates Pty Ltd (MA) 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 Las Minerale and Southern Rocklands Pit development will occur in stages. The Las Minerale Stage 1 is complete after reaching an RL of 152.5 RL vs. a design of 150 RL. Las Minerale Stage 2 has been partially developed to 170 RL. Final design is to 100 RL. Las Minerale Final has been partially pre-stripped to 215 RL with a cutback to commence on completion of Stage 2. Initial pre-strip of the Southern Rocklands Pit has begun. The Southern Rocklands Pit will be developed in 2 stages with the potential for an additional small high grade pit to access native copper rich material.

The current mine production plan adopts an accelerated mining operation that completes 10 years of mining over a 7 year time frame, see table below for the Mine Production Plan.

Year	Waste (kt)	Ore (kt)
0 (stockpiles)		2,200
1	8,786	3,659
2	16,539	3,461
3	17,485	2,515
4	17,353	2,647
5	16,041	3,959
6	16,059	3,941
7	16,971	3,029
8	7,560	2,299
9 & 10	-	-

Planned Production Rates – Total mined/annum.

Knight Piésold Consulting undertook initial Waste Dump Designs. Four Waste Dumps have been approved by the Department of Environmental and Heritage Protection (DEHP), East, West, North & South. Initial waste haulage is to the East and West Waste Dumps. As the pits get deeper these dumps are completed and

27,700 (rounded to 28M reserves)

116.795



haulage moves to the North and South dumps reducing the haul distances. Capacity of the combined dumps will meet the requirements for all currently planned pits.

Blasthole drilling is conducted on a contract basis using a fleet of 4 Sandvik 1100 class Blasthole Drill Rigs. Drilling consists of 10 m Benches, with flitches of 2.5 m. Blastholes will be primarily 102 mm diameter with 89 mm holes used to enhance wall control and minimise blast damage. Trim shots will be used to minimise blast damage to batters. Trim shots will be kept to minimum possible width (10 m -12 m). Powder factors will vary according to material type, using Emulsion (Fortis Advantage or equivalent).

1.4.1 Waste rock characterisation

Knight Piésold (KP) provided design parameters and construction guidelines for the Rocklands waste rock dump (WRD) which have been used in the WRD design and sequencing. Waste rock characterisation work by KP found that:-

- The main waste domains are dolerite, sediment, breccia, calcareous, quartz sediment and metasediment and cover material comprising colluvial, alluvial and ferricrete and calcrete rocks.
- 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.
- Waste rock generally has a low to moderate sulphide content.
- 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.
- Approximately 7% of the waste to be mined will require placement within an engineered PAF storage area.
- Different domains present varying degrees of potential acid production/consumption.

1.5 METALLURGY AND PROCESS PLANT OVERVIEW

1.5.1 Metallurgical Testwork and Design

Copper species are dominated by:

- Oxide zone: Malachite, azurite, tenorite, cuprite and native copper.
- <u>Supergene enrichment zone</u>: Chalcocite and native copper.
- Secondary sulphide enrichment zone: Altered sulphides chalcocite and bornite.
- Primary sulphide zone: Unaltered original sulphide emplacement of chalcopyrite and bornite.

To define the mineralogy into ore-types for processing, a colour-coding system has been developed for mapping and production planning. Each of the six primary ore type classifications have been additionally subdivided into low and high grade to provide blending capability.

- Agua Oxide (OX)
- Pink Native Copper Oxide (NC_OX)
- Blue Chalcocite (CC)
- Purple Native Copper Chalcocite (NC_CC)
- Yellow Chalcopyrite (CPY)
- Orange Native Copper Chalcopyrite (NC CPY)
- Brown Mineralised Waste
- Grey Magnetite Waste

As metallurgical testing commenced prior to the above classification system being developed, and was focussed on individual lithologies and the major target mineral groups, there is not always a clear link

between samples tested and current production planning process, so some generalisations and extrapolations have been required to develop performance parameters for each classification.

Sampling initially targeted the four main mineralogical and lithological groups, from within the main drilled zones of Las Minerale and Rocklands South:

- Native Cu/oxide;
- Chalcocite (with minor Native Cu);
- Hydrothermal Breccia Primary Sulphide (Chalcopyrite and Pyrite), and
- Dolerite Breccia Primary Sulphide.

Numerous technologies and techniques were applied to mineralised samples extracted from across the Rocklands mineralised zones to establish the general amenity of mineral species to efficient recovery to produce quality saleable products, and to determine any potential processing problems.

CuDeco has undertaken extensive metallurgical testing on each of the material types for input to the design of the processing plant. These have included Mineral Liberation Analysis (MLA), SMC Tests, Bond Work Index (BWI) testing, Gravity (and physical) Separation, Flotation testing and Magnetic Separation.

The following Table shows a summary of the procedures and processing techniques that have been applied to Rocklands mineralisation.

Flotation **Mineralisation Type** Screen Crush ≣ Oxidised ٧ ٧ ٧ **Native Copper** Chalcocite ٧ ٧ ٧ ٧ ٧ ٧ ٧ Primary ٧

Summary of Processing Techniques Applied to Rocklands Mineralisation.

Following MLA assessment undertaken in early 2008 of the Rocklands oretypes, a defined program of metallurgical testwork was carried out on copper ore samples by AMMTEC from November 2008 to September 2010.

Referee testwork to substantiate the results from AMMTEC, and orebody variability testwork was carried out by Burnie Research Labs between mid-2009 and mid-2014.

Nagrom undertook pilot flowsheet studies on three ore parcels from CuDeco's Rocklands project. The studies ran from November 2010 to September 2011 and included the following three ore- type domains:

- Native Copper Ore
- Primary Copper Ore
- Chalcocite Copper Ore

It was decided to plant trial one of CuDeco's ore types at the Ernest Henry Mine (EHM) Concentrator in November of 2014. The ore selected was a 22 kt blended parcel of highly weathered (1,500 tonnes) and the balance was high grade ore from the breccia zone containing primary ore (chalcopyrite). The ore was a hydrothermal breccia dominated by dolerite and siltstone with 20-25% calcite and quartz. The objective of the trial was to determine the metallurgical performance of the ore utilizing EHM's plant and reagents. As a

commissioning trial of the ore-type, the results (82.64% Cu recovery and 29.13% Cu concentrate grade) are considered to be excellent for a trial of such a short duration.

1.5.2 Process Overview

The Rocklands Fixed Crushing Plant and Copper Concentrator are designed to treat 3.0 million tonnes of ore per year at 91.3 % availability. Crushed ore will be fed into the processing plant, which will produce five saleable products:

- Coarse native copper concentrate
- Filtered fine native copper concentrate
- Filtered sulphide copper concentrate
- Filtered pyrite concentrate containing cobalt
- Filtered magnetite concentrate

A copper casting plant has recently been installed. The furnace has a rated capacity of 1 t/h, and will produce half tonne copper ingots by melting coarse native copper.

Presented below are generalised process indices extracted from Nerin's Basic Design Specification, dated October 2012, which formed the basis for mass balancing plant sections.

Material	Yield %w/w	Grade (%)				Recovery (%)				
		Cu (Tot) Co S TFe			Cu (Tot)	Со	S	TFe		
Blended Feed	100	3.0	0.2	9.6	14.2	100	100	100	100	
Copper Concentrate	8.91	32.0	0.2	33.0	26.0	95.0	7.1	30.6	16.3	
Cobalt Concentrate	13.00	0.74	1.0	50.0	28.4	3.21	65.0	67.7	26.0	
Flotation Tails	78.09	0.069	0.071	0.208	10.492	1.79	27.90	1.69	57.70	
Magnetic Concentrate	8.77	0.13	0.01	0.020	68	0.38	0.44	0.018	42	
Tailings	69.32	0.061	0.079	0.23	3.22	1.41	27.46	1.67	15.70	

Designed Mineral Processing Indices

1.5.3 Process Flowsheet

The key aspects of the flowsheet for the treatment of the Rocklands ore are:

- The recovery of the native copper component in the feed into separate products: Very Coarse (>40 mm from crushing plant), Coarse (>1 mm by jigs) and Fine (<1 mm, >0.1 mm from spirals and tables),
- The differential separation and recovery by flotation of the copper minerals and the pyrite containing cobalt,
- Recovery of magnetite from flotation tailings.

Simplified flowsheets are presented below.

The Fixed Crushing Plant was initially installed with the following equipment:

- Grizzly screen
- Jaw crusher
- Two rolls crushers
- Various screens and conveyors.

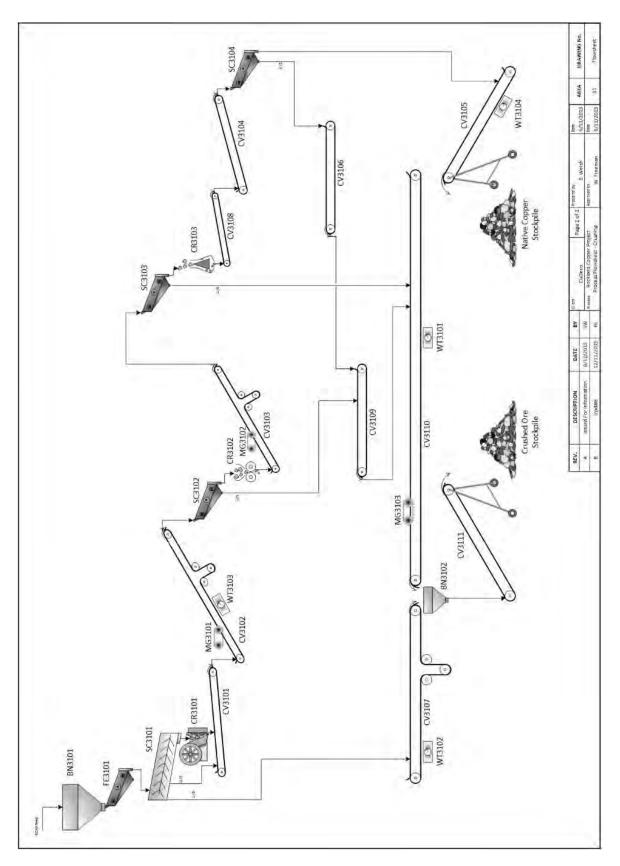


Following the trials with an ore sorter and cone crusher, as discussed in Section 13, the second rolls crusher was replaced with a cone crusher.

The Process Plant installed at Rocklands consists of:

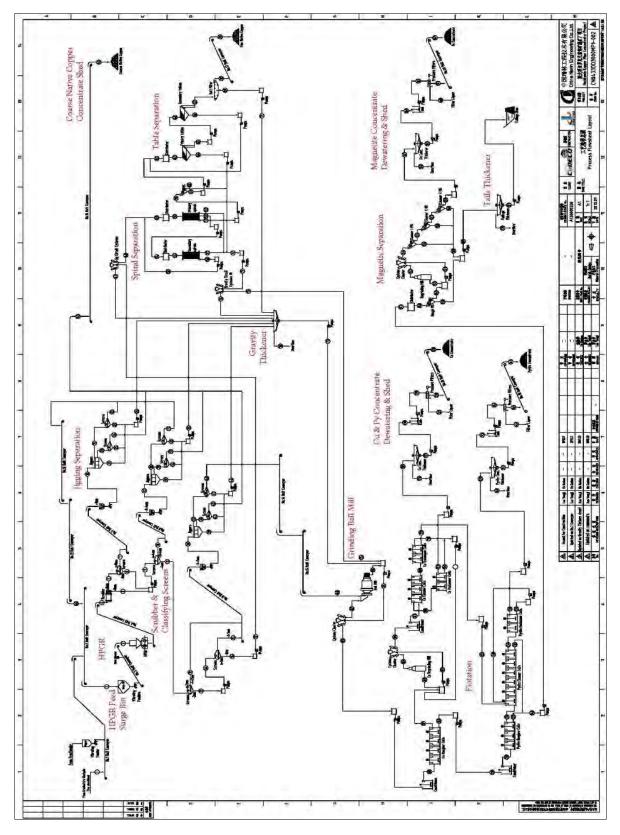
- A high pressure grinding roll (HPGR)
- A rotary scrubber (de-agglomerator)
- Classifying screens
- Jigging circuit, consisting of coarse, intermediate and fine jig circuits
- Spiral separation, consisting of rougher and scavenger spirals
- Table separation, consisting of rougher and cleaner tables
- Two belt filters, to filter fine native copper product from spirals and tables
- Five thickeners (gravity, copper concentrate, pyrite (cobalt) concentrate, magnetite concentrate and tailings thickeners)
- Ball mill and cyclones
- Copper flotation, consisting of roughing, regrinding, cleaning, scavenging and re-cleaning
- Pyrite (cobalt) flotation, consisting of roughing, cleaning and re-cleaning
- Magnetic separation, consisting of roughing, regrinding, cleaning





Fixed Crushing Plant Flowsheet





Process Plant Flowsheet



1.6 PROJECT INFRASTRUCTURE

Development of the infrastructure required to support the project has been ongoing since first earthworks started in the first quarter of 2012 and is well developed in terms of project readiness.

The key elements are:

- Access and haul roads complete
- Fuel storage and distribution 95 % complete
- Explosive blending and storage infrastructure complete
- Earthworks for Morris Creek Diversion 95% complete.
- Bore field development for dewatering of mining areas and to supply additional water for processing and source of potable water 90% complete.
- Earthworks for water containment to manage high wet season flows and provide water for processing 90% complete.
- On-site roadworks complete.
- Initial power generation and distribution 90% complete.
- Tailings Storage Facility (TSF) and ancillary feed piping and return water piping 90% complete.
- Buildings for offices, maintenance facilities, security, HSE and warehousing 70% complete.
- Waste water and waste treatment facilities complete

CuDeco owns, or leases, and has already established all necessary office facilities in Southport, Cloncurry and on site at Rocklands.

This includes:

- Head Office (Southport, Qld)
- Regional Office (Cloncurry, Qld)
- Operations Office facilities (Rocklands Project Site)
 - o Mining and Administration Office
 - o Processing Office and Control Room
 - Mobile Maintenance Office

The Rocklands Site Facilities include crib rooms, ablution blocks, training facilities, workshops and storage areas.

1.6.1 Accommodation

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.

1.6.2 Maintenance Facilities

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 100 t dump trucks and other heavy machines.

A maintenance workshop for fixed plant mechanical, electrical and boiler making maintenance of similar design to that for the mobile machinery is currently under construction with concrete laid and fabrication of roof structures underway.



1.6.3 Explosives Infrastructure and Magazines

CuDeco has facilities and licensing in place to store all IE and HE required for the life of the project. Magazine capacity is 40000 detonators and 20 tonnes of IE accessories and storage for up to 280 tonnes of HE.

1.6.4 Raw Water Supply and Storage

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 Las Minerale Pit and Southern Rocklands Extended (SRE) Pit, but also supply raw water for the process.

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 10 km of large diameter pipeline that is capable of supplying an addition 2 ML a day, which is equivalent to 23 L/s.

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 8 m.

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 will be unlined as it is only a short term holding cell.

Adjacent to the processing plant are several process water ponds which will store tailings thickener overflow water, 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.

Small turkey nest ponds are positioned at various locations around the site to provide dust suppression and to supply alternate firefighting water sources.

1.6.5 Potable Water Supply, Treatment and Dispersal

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.

1.6.6 Power Supply

CuDeco generates its own electrical power. In the mine, offices, and crusher areas stand-alone diesel generators are used. As the Processing Plant requires significantly more electrical power a dedicated diesel power station has been constructed for the plant.

The diesel power station was designed and constructed by Cummins Power Generation and comprises 16 x 2250 kVA Cummins diesel generator sets. The station's minimum continuous output power capacity is approximately 18.8MW. This rating reduction is due to technical, environmental, and warrantee requirements that result in only 14 of the 16 generators guaranteed to be available to run at any given time. The overall operating power demand of the Processing Plant is estimated at 13MW during normal operation, up to 18.8MW spinning reserve required on staged start-up of the plant.



The operation has approval under its license to include alternative power supply through solar and grid power that will reduce the onsite power generation to approximately 5% of Rocklands total power requirement within a few years of commissioning the process plant. This reduces the overall power costs for the project and has been included for the life of mine (LOM) power operating costs.

1.6.7 Tailings Storage and Management

The Tailings Storage Facility (TSF) for the Rocklands Copper Project comprises a "turkey's nest" type storage comprising 2 cells that occupy an approximate area of 141 ha. The topography in the vicinity of the TSF incorporates a ridgeline with significant granite outcroppings to the north of the TSF footprint and low rounded hills within the southern confines of the TSF footprint. The TSF was constructed to the north east of the processing area.

Initially, tailings slurry will be discharged in a single point on the southern side of the TSF, allowing it to gradually drain across to the northern side, and eventually accumulating in the low point of the TSF. This provides time for the solids to settle out, before reaching the low point, from which water will initially be recovered. In the early stages, water will be pumped directly from this low point in the TSF to the process plant. This method will continue until the TSF level is sufficient to start filtering in to the TSF decant pond (eastern side of TSF).

The second phase will see tailings being discharged into the facility by sub-aerial deposition methods, using banks of spigots at regularly spaced intervals around the circumference of the TSF. Water will be recovered from the TSF decant pond and pumped to the return water pond, located on the western side of the facility. Water will then be pumped from the return water pond to the process plant.

1.7 ENVIRONMENTAL

1.7.1 Plan of Operations

A standard condition of an EA approval requires the preparation of a plan of operations. 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.

1.7.2 Environment licencing

CuDeco have held and maintained an Environmental Authority (licence) since October 2011. 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 19th November 2014. CuDeco are currently preparing for the next EA amendment lodgement through the Department of Environment and Heritage Protection prior to May 2017.

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. Independent auditors Synnot and Wilkinson have completed all EA auditing since 2013.

1.7.3 Environmental Approvals –Rocklands

The Environmental approval process as required by the State of Queensland has been completed by CuDeco and has continually maintained its licencing requirements as shown below.



CuDeco's Environmental approval history and amendments

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 Biodiversity offsets TSF
December 2014 (current EA)	Amended EA approved 19/12/2014 Changes to: Schedule B-Air
December 2015	CuDeco is currently preparing a new EA amendment for lodgement prior to May 2017. This amendment is to assist CuDeco to further develop site specific environmental monitoring objectives and approval for additional waste-rock volumes. An updated Plan of Operations shall be completed following the approval of this EA amendment.

CuDeco Plan of Operations

Document Number	Title	Date	Author
CDU-ENV-PLN-0002	Plan of Operations March 2012-December 2012	29/03/2012	CuDeco Ltd
CDU-ENV-PLN-0002	Plan of Operations January 2013 – June 2013	29/04/2013	CuDeco Ltd
CDU-ENV-PLN-0002	Plan of Operations July 2013 –December 2013	19/06/2013	CuDeco Ltd
CDU-ENV-PLN-0002	Plan of Operations September 2013 –December 2014	20/09/2013	CuDeco Ltd
CDU-ENV-PLN-0002	Plan of Operations October 2014 – November 2015	30/10/2014	CuDeco Ltd
CDU-ENV-PLN-0002	Plan of Operations January 2015 – December 2015	19/01/2015	CuDeco Ltd



Document Number	Title	Date	Author
CDU-ENV-PLN-0002	Plan of Operations December 2015 – May 2017	20/11/2015	CuDeco Ltd

CuDeco's current Environmental Authority to operate granted through the Queensland Department for Environment and Heritage Protection (EHP) will continue to be implemented throughout the planned life of the operation. This licence is renewed annually through the official EHP annual return notification procedure.

It is envisaged that CuDeco may apply for amendments to the Environmental Licence during the operational life of the project; this will be to update and better develop and manage site specific data trigger levels and contaminant limits. Following each approved EA amendment a new Plan of Operations shall also be lodged for review with EHP for approval before on ground works begin.

This method of approval should not affect ongoing site infrastructure development and operation as outlined in the feasibility study.

1.8 FINANCIAL

CuDeco key economic parameters are summarised in the table and figures below.

CuDeco Key Economic Parameters

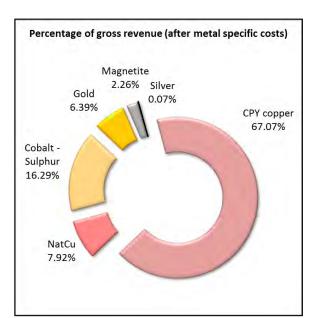
Parameter	Unit	Value
Average LOM Mill feed	Mtpa	2.74
Average LOM Head Grade	Cu eq %*	0.90
Average LOM head Grade	Cu %	0.71
Average LOM Production	Cu eq tpa	25,319
Average LOM Production	Cu tpa	18,347
Mine Life	Years	10**
C1 LOM Cash Costs Cu eq	A\$/lb of CuEq	1.13
Initial Capital Invested	A\$M	637.4
LOM Sustaining Capital	A\$M	42.2
LOM Sales revenue	A\$M	1,930
Net Cash flow before tax	A\$M	631
Net Profit LOM after tax and net of depreciation	A\$M	112
NPV before Tax @ 8 %***	A\$M	465
NPV after Tax @ 8 %***	A\$M	405
IRR after tax	%	0.2
LOM Exchange rate	AUD/USD	0.711

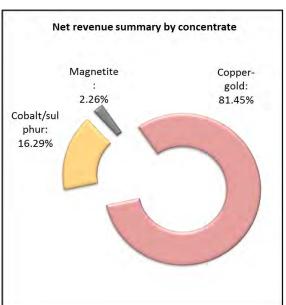
^{* -} copper equivalent includes cobalt, gold and magnetite, see Section 15, JORC Table 1 for details of this calculation.

^{** -} Based on resources the mine life is expected to be extended

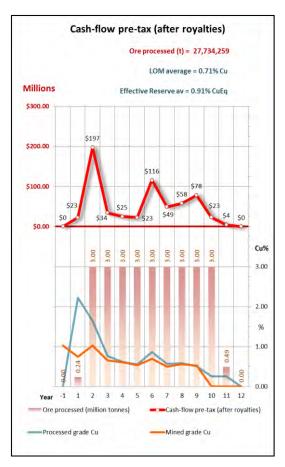
^{*** -} NPV excludes any debt repayments and/or funding revenue/payments

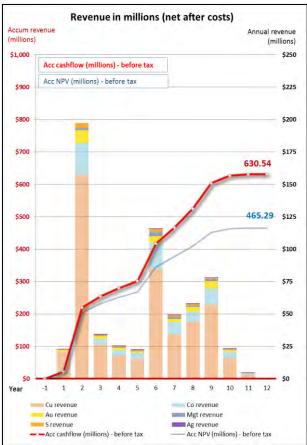






Projected gross revenue for each metal and net revenue by concentrate





Processing, feed grades and revenue (left) and cash-flow (net after costs after royalties)



1.8.1 Capital costs

The total estimated capital costs are capital costs to achieve commercial production, including practical construction completion, commissioning and an allowance for working capital to reach surplus cash flow.

CuDeco Project Costs estimate for the Project (\$000s)

Cost Category	AUD (\$000's)	AUD (\$000's)	AUD (\$000's)
Project Pre- Development Costs (Including Exploration up to granting of Mining Leases – May 2012)			83,764
Capital Costs of Project Construction (from Granting of the Mining Leases to December 2015):			
Process Plant		276,901	
Land & Buildings		16,962	
Other Plant & Equipment and Mining Assets		46,268	
Mine Development Expenditure			
Overburden removed	62,628		
Cost of Ore Stockpiles	17,590		
Environmental rehabilitation provision	6,246		
Corella Park and Burke Roads construction	3,116		
Tails Dam	5,234		
Costs of Infrastructure assets	54,960		
Total Mine Development Expenditure		149,774	
Total Project Capital Costs to December 2015			489,905
Estimated Capital and Operating Costs to surplus cash flow			63,726
Total Estimated Costs (from Commencement of Exploration to Completion of Project)			637,396



Life of Mine (LOM) Capital Costs is estimated as follows:

CuDeco Life of Mine Capital Costs estimate for the Project (\$000s)

Life of Mine Capital	AUD (\$000's)
Capital costs to date	573,670
Capital and Operating Costs to Surplus Cash Flow	63,726
Sustaining Costs	42,227
	679,623

1.8.2 Sustaining Capital

Sustaining costs for capital replacement of Processing and Mining infrastructure have been allowed for in the Project at \$0.12/t mined and \$0.82/t milled and are shown below. Sustaining capital of \$42.2 million allows for tails dam lift, second tails dam pond, grid connection, mobile equipment minor rehabilitation (road ripping and seeding), mining equipment replacement and other minor capital purchases. Mine closure costs have not been included in the 10 year mine life plan as CuDeco intend on extending the life of the mine with the current resources.

Sustaining Capital

	Total	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
Tonnes Mined	142,304	460	16,985	20,000	20,000	20,000	20,000	20,000	20,000	4,859		-
Ore Processed	27,734	240	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	494
Mining \$/tonne (\$0.12)	17,076	55	2,038	2,400	2,400	2,400	2,400	2,400	2,400	583	-	-
Processing \$/tonne (\$0.82)	25,150	218	2,720	2,720	2,720	2,720	2,720	2,720	2,720	2,720	2,720	448
Total	42,227	273	4,759	5,120	5,120	5,120	5,120	5,120	5,120	3,304	2,720	448

1.8.3 Working Capital

Included in the costs to surplus cash flow is an allowance for the working capital required by the Company up until the Plant is operational and generating sufficient revenue for the operations to be cash flow positive. Working capital includes all mining, processing, commercial and asset development costs expected to be incurred from January 2016 through to the end of June 2016.

1.8.4 Operating cost

LOM operating costs are shown below. TC/RC is for Copper, Native Copper, Pyrite, Gold, Silver and Magnetite. Transportation is for all products from Rocklands Project to Townville Wharf and is based on the Townsville Bulk Storage and Handling (TBSH) contract.



Life of Mine Operating Costs (\$000s)

Cost Category	(\$000's)	Unit Cost (\$/t mined)	Unit Cost (\$/t milled)
Mining			
Grade Control and Assay	21,054	\$0.15	\$0.76
Mining Overheads/Administration (inc Survey)	66,781	\$0.47	\$2.41
Maintenance	99,258	\$0.70	\$3.58
Dig and Load	38,706	\$0.27	\$1.40
Stockpile to ROM	5,543	\$0.04	\$0.20
Drill and Blast	99,040	\$0.70	\$3.57
Haulage	105,463	\$0.74	\$3.80
Total Mining	435,845	\$3.06	\$15.72
Processing			
Power	174,076		\$6.28
Op Labour	90,056		\$3.25
Maintenance (Capital replacement)	21,586		\$0.78
Maint Labour	23,750		\$0.86
Consumables	56,496		\$2.04
Lab Assays	2,924		\$0.11
Total Processing	368,888		\$13.30
Subtotal	804,733		\$29.02
General & Administration	66,438		\$2.40
Transportation	116,305		\$4.19
Royalties	80,046		\$2.89
RC/TC	231,747		\$8.36
Contingency	-		\$0.00
Subtotal	494,535		\$17.83
Total Operating Costs	1,299,268		\$46.85

1.8.5 Cash Flow and NPV

Cashflow pre-tax after royalties is shown below and Net Present Value (NPV) at a Discounted Cash Flow (DCF) of 8%, excluding any debt repayments and/or funding revenue/payments, is shown below.



Cash-flow pre-tax (after Royalties)

Cash-flow pre-tax (after royalties)	(AUD 000's)
Total sales revenue	1,929,804
Royalty (on total sales - variable)	(80,045)
Operating costs (mine, process, transport);	(921,037)
General Administration Rocklands (Total LOM)	(66,438)
Treatment costs (TC) @ \$0.199 per pound CuEq	(96,902)
Refining costs (RC) @ \$0.244 per pound CuEq	(134,845)
Net cash-flow	630,536
Total dividends (based on 100% Net cash-flow) per share (pre tax/after royalties) LOM =	1.90
Total dividend (based on 100 % Net cash-flow) per share (after tax/after royalties) LOM =	1.85

Net Present Value (NPV) at DCF of 8%

Description	(AUD 000's)
NPV (discounted) - before tax	465,288
Required capital to surplus cash flow (surplus/deficit)*	(52,402)
NPV (discounted) - before tax	412,887
Estimated tax payable	(15,147)
NPV (discounted) - after tax	457,414
Capital to surplus cash flow*	(52,402)
NPV (discounted) - after tax (+cash)	405,012

^{*} Capital to surplus cash flow of \$52M does not include operating costs of \$12M because these are include elsewhere in the NPV calculation



1.8.6 Sensitivities

Sensitivity analysis of NPV has been carried out on the financial model to the following:

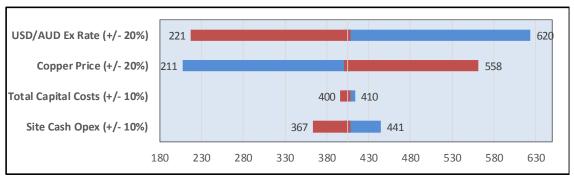
- 20% variance in copper price
- 20% variance in USD/AUD exchange rate
- 10% variance in site cash opex (operational costs)
- 10% variance in total capital costs.
- 10% variance in Cu and Co Grade and Recovery

Sensitivity Analysis - Base NPV +/- 20%

Sensitivity Analysis - Base NPV +/- 10%

Sensitivity	\$	Copper Price	USD/AUD Ex Rate		
-20%	\$M	211	620		
Base	\$M	405	405		
+20%	\$M	558	221		

Sensitivity	\$	Site Cash Opex	Total Capital Costs	
-10%	\$M	441	410	
Base	\$M	405	405	
+10%	\$M	367	400	

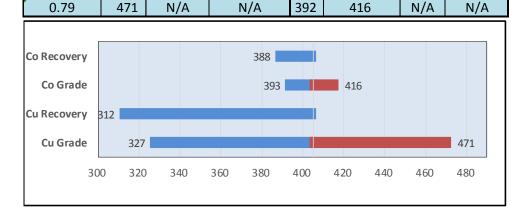


Sensitivity analysis of NPV to 20% variance in copper price and USD/AUD exchange rate, and sensitivity analysis of NPV to 10% variance in site cash opex (operational costs) and total capital costs.



Sensitivity Analysis - NFV to Ca & Co Grade and Recovery								
Copper			Cobalt					
Grade	2	Recovery		Grade		Recovery		
Cu Grade	NPV	Cu Rec	NPV	Со	NPV	Со	NPV	
%	\$M	%	\$M	Gra	\$M	Rec	\$M	
0.64	327	86	312	320	393	81	388	
0.71	405	95	405	357	405	90	405	

Sensitivity Analysis - NPV to Cu & Co Grade and Recovery



Sensitivity Analysis of NPV to 10% variance in Cu and Co Grade and Recoveries

1.9 PROJECT IMPLEMENTATION AND SCHEDULE

The status of the Rocklands Project (the Project) at the time of developing this Feasibility Study (FS) is considered to be at an advanced stage.

- Environmental licenses to operate are in place for all activities.
- Site infrastructure has been developed to provide site access roads and on-site roads, creek diversions, water supply and storage, and tailings storage.
- Mine site buildings are in place or in final stages of construction.
- Housing has been obtained in Cloncurry to provide accommodation assistance for resident empoyees.
- Initial operating power generating capability is 90% complete (smaller generator sets are in use to provide power for current activities).
- Site services, such as sewage treatment, water treatment, and communications and IT are in place.
- Mine plans have been developed, the Stage 1 pit for Las Minerale completed, and Rocklands South pit in development. A total of 13.8Mt waste and ore has been extracted from the production pits.
- Approximately 2.2Mt of ore of various categories (type and grade) has been stockpiled. Some 1.6Mt of this is planned for processing in the first stages of the project.
- Structural, Mechanical and Piping installation of the Process Plant is largely complete with some enhancements (cone crusher, reclaim feeder) being undertaken, and Electrical and Instrumentation installation well advanced.
- Key personnel have been recruited and total CuDeco workforce is approximately 40-50% of operations establishment.



- Preliminary processing trials have been conducted to produce native copper concentrate for market evaluation and trial processing of on-site melting and casting.
- A 22 kt parcel of primary sulphide copper ore was toll treated at the Ernest Henry mine with satisfactory results confirming performance predictions for this material.

CuDeco oversaw the development of the project using a senior management team who will be responsible for management of an EPC Contractor and completion of scope items that remain outside the EPC contractor's responsibilities.

CuDeco was responsible for the following scope areas:

- Selection and purchase of Rocklands' mobile equipment;
- Mine development and pre strip;
- Project Infrastructure such as water management, waste management, buildings/workshops, power supply, tailings storage facility (TSF);
- Construction of the process plant earthing grid and the process plant civil works;
- Establishment of an accommodation facility in Cloncurry and housing for senior personnel in Cloncurry;
- Government approvals and licencing;
- Landowner agreements;
- Exploration and tenement holding costs;
- Establishment of operational stores and maintenance systems;
- Establishment of operational HSE systems and procedures;

CuDeco made the decision to adopt an "Own and Operate" strategy from the start of the Project. The company owns its entire fleet of Excavators, Dozers, Dump Trucks and ancillary equipment. This philosophy has also allowed the company to undertake the majority of the civil construction works required for the project (Water Storage Facility, Morris Creek Diversion, ROM Pad, Process Plant Pad, Haul Roads, TSF) reducing the need to engage contractors.

CuDeco are currently assessing vendor bids for the future mining fleet options of owner-operator, lease operator or contract mining.

Included in Mine Plant and Development (MP&D) Expenditure of \$238 million, including capital costs to surplus cash flow (covers the majority of CuDeco scope) are:

1. CuDeco Projects Undertaken and completed were:

- Construction of the main Haul Road;
- Corridor haul and service road to the Tails Storage Facility;
- Main Access road;
- Construction of the Morris Creek diversion and dam;
- Construction the Run of Mine (ROM) ore storage Pad;
- Preparation of the Waste-rock dump areas;
- Construction of the Water Storage Facility (WSF);
- Construction of the Tailings Storage Facility (TSF) Return water pipe corridor;
- Construction of the Process Water, Raw Water and Environmental Control ponds at the Process Plant;
- Construction of water transfer dams;
- Installation of dewatering and water supply bores, and



Installation of potable water and wastewater treatment services.

2. Infrastructure works undertaken under contract and supervised by CuDeco were:

- Vegetation and Topsoil removal from;
- Las Minerale Pit;
- Southern Rocklands Pit;
- Southern Rocklands Extended Pit:
- Process Plant Pad; and
- Construction of the Tailings Storage Facility;

3. Finance Cost:

- Capitalised interest on Borrowings; and
- Capitalised Borrowing Costs

Administration costs for Southport and Hong Kong Offices and Non-Executive/Executive Directors have not been capitalised to MP&D.

Included in the estimated cost of the processing plant of \$301 million, including capital costs to surplus cash flow, is the Sinosteel EPCM contract, of which, apart from some estimated variations, only the electrical installation work needs to be completed. Other external contractors completed the Primary Crusher, Tails Storage Facilities and miscellaneous minor projects around the processing plant. The Heavy Vehicle Workshop in is being constructed in-house by CuDeco employees.

The EPC contractor, Sinosteel was responsible for the majority of the scope associated with the process plant and associated infrastructure design, procurement, freighting, installation and commissioning including establishment of the construction site. Sinosteel engaged NERIN as the engineering house to complete all the basic and detailed design of the process plant. CuDeco has entered into a number of contracts with Sinosteel Equipment and Engineering Co. Ltd in relation to various phases of construction of the production plant and a memorandum of understanding in relation to electrical installation for the plant. Once construction of the production plant has been completed and electrical wiring has been installed, it is not anticipated that any significant subcontracting arrangements will be required to proceed to commercial production, as staff will perform all mining and processing functions.

The individual contracts awarded to Sinosteel were as follows:

- Basic Design Services Contract;
- Contract for Detail Design and Equipment Supply (Including DCS);
- Contract of Steel Structure Supply and Supplemental Contract to Steel Structure Supply;
- Contract for Supply of Piping;
- Contract of Structure Mechanical and Piping Installation;
- Construct Contract for Processing Plant Electrical Installation, and
- Engineer Procure and Construct Turnkey Contract for Power Station.

As of December 2015 the major remaining scope for Sinosteel is as follows:

- Electrical and Instrumentation Installation Sinosteel have engaged Walz construction as the major subcontractor to install in conjunction with JLE whilst Sinosteel will be contracted to provide overall construction management;
- Commissioning Sinosteel to carry out all punch listing, dry and wet commissioning and being granted practical completion, ore will be introduced to the plant under the



management of CuDeco. Sinosteel will, under contract to CuDeco assign a commissioning assistance and modification team to assist CuDeco with initial plant ore commissioning.

Project Schedule

The project schedule has been severely affected by funding and at the time of writing is still affected. The initial basic design began in 2010 with NERIN under the management of Sinosteel and by December 2015 the project is some 90 % complete. It is estimated that commissioning of the process plant will occur in early 2016 following practical construction completion of the electrical installation.

Operations and Workforce

It is planned that the manning levels for both Mining and Processing Departments will consist of 3 shift production crews with the addition of technical and operational staff. The planned manning levels include provisions for annual leave, unplanned leave and training coverage. Manning levels for other departments will be determined by the anticipated production targets and may increase or decrease dependent on operational requirements. Manning levels for the project operations are expected to be as follows:

Manning Levels

Operational areas	Number of employees			
Corporate, Commercial, Admin and Services	47			
Mining, Exploration, including maintenance	87			
Processing including maintenance	95			
Total CuDeco employees	229			
Total Contractors	10			

1.10 RISK ANALYSIS

The minerals industry has by its nature a high level of risk. The many and various risks accumulate and can affect each other. Variations in the type of mineralisation, distribution of grade and mineralogy can never be fully predicted or estimated.

Risk has been classified from major to minor as follows:

Major Risk: the factor poses an immediate danger of a failure which, if uncorrected, will have a material effect (>15% to 20%) on the project cash flow and performance and could potentially lead to project failure.

Moderate Risk: the factor, if uncorrected, could have a significant effect (10% to 15%) on the project cash flow and performance unless mitigated by some corrective action.

Minor Risk: the factor, if uncorrected, will have little or no effect (<10%) on project cash flow and performance.

The likelihood of a risk event occurring within a nominal 7 year time frame has been considered as:

Likely: will probably occur

Possible: may occur

Unlikely: unlikely to occur



The degree or consequence of a risk and its likelihood are combined into an overall risk assessment, as shown below.

Risk Assessment Guidelines

Likelihood of Risk	Consequence of Risk					
(within 7 years)	Minor	Moderate	Major			
Likely	Medium	High	High			
Possible	Low	Medium	High			
Unlikely	Low	Low	Medium			

A summary and assessment of the main risks for the project is shown in below;



Risk Assessment Table

Risk Issue	Likelihood	Consequence	Risk	Comment and Mitigation			
Geology and Resource							
Geology: Ore Body Interpretation	Unlikely	Moderate	Low	Reconciliation with Trial Mining grade control			
Lack of understanding of Geological Controls	Unlikely	Moderate	Low	Geological mapping during Trial Mining			
Incorrect Resource estimate methodology distorts the grade tonnage curve	Unlikely	Moderate	Low	Use of multiple methods, Reconciliation with Trial Mining grade control			
Resource Confidence	Unlikely	Moderate	Low	Reconciliation with Trial Mining grade control			
Mining and Reserve							
Open pit wall failure	Unlikely	Moderate	Low	Slope Monitoring Systems in place and updated Geotech learning from the 14 Mt already mined. Mitigated by maintaining pit to design specifications			
Higher Mining Costs	Possible	Minor	Low	Cost controls, option to go to full contract mining			
Environmental Impact and	Managemen	t					
Tailing storage facility	Unlikely	Minor	Low	Overflow catchment in place, expansion included in design			
Heritage and Cultural							
Heritage sites damaged or destroyed.	Unlikely	Minor	Low	Mitigated by the completion of heritage surveys, native title agreement and cultural training and operational procedures			
Process Design, Plant Desig	n, and Opera	ition		o an in Special Control of Contro			
Process Design	Possible	Minor	Low	Scale-up risk; mitigated by flexible plant design and utilisation of high efficiency equipment types (HPGR, Jigs, Spirals, Tables).			
Detailed Plant Design and Engineering	Possible	Moderate	Medium	Particularly for gravity recovery sections; mitigated by sufficient funds to complete with deployment of on-site rectification team.			
Funds to complete plant construction and commissioning	Possible	Moderate	Medium	Project is at advanced stage enabling development of tight control budget to achieve practical completion. Commissioning risk mitigated by establishment of an Owner's dedicated commissioning team to plan, organise, direct and control construction completion, start up and commissioning trials to commercial production status.			
Operational Targets not met, plant does not meet design capacity	Possible	Moderate	Medium	Individual vendor technical specialists will visit site during the wet commissioning phase and commission their supplied equipment to the satisfaction of site personnel. Allowance for rectification and modification work to meet design capacity.			
Multiple products increases plant complexity	Possible	Minor	Low	Each product contains minor amounts of the others. To achieve optimum financial returns, good operational monitoring (metallurgical accounting) and control is required.			
Material different to design	Unlikely	Moderate	Low	The process plant as constructed has			



Risk Issue	Likelihood	Consequence	Risk	Comment and Mitigation
				considerable contingency in most sections to allow for a range of feed conditions. A trial parcel of ore successfully treated at EHM. Separate stockpiling of ore types provides alternate treatment scenarios.
Lower than target plant availability	Possible	Minor	Low	The size and complexity of the processing plant will present challenges. Mitigated by efficient maintenance planning procedures and effective coordination with production, allowing sections to be bypassed when processing different ore-types.
Low plant utilisation and unstable operation	Possible	Minor	Low	Due to complexity of processing plant. Mitigated by recruitment of high quality personnel and development of training procedures.
Infrastructure				
Delays in alternative power	Possible	Minor	Low	Look to progress these discussion well in advance of requirements.
Implementation and Comm	issioning			
Project costs and schedule delays to the final process plant completion.	Possible	Moderate	Medium	Commissioning of plant takes longer than expected due to complexity of circuit and rectification works. Mitigate by good project control systems and management to define the scope well and resource the execution appropriately with a dedicated experienced team.
Delay to commissioning and production ramp up to design capacity	Likely	Minor	Medium	Mitigate by detailed mill production scheduling during this phase and resource the commissioning and production ramp up phase with appropriate skilled personnel and numbers of personnel. Maintain the EPC contractor and potential additional contractors on site for modifications during the commissioning phase.
Management and Operatio	ns			
Inadequate systems and procedures.	Unlikely	Minor	Low	Early development of adequate systems and procedures which is currently underway.
Difficulty in securing and retaining appropriately skilled employees and contract providers.	Unlikely	Moderate	Low	Mitigated by early recruitment of key people, the provision of an attractive and comfortable environment in Cloncurry, attractive conditions of employment and training and advancement opportunities. Current downturn in the commodities market is making skilled staff available.
Concentrate transport interruption.	Unlikely	Minor	Low	adequate indoor bulk concentrate storage available at site, half height container storage available and the option to transport by rail as well as road
Government and Taxation				
Change in taxes	Unlikely	Moderate	Low	Low sovereign risk. Mitigated by a review of project cost sensitivities to understand possible impacts
Licensing and Permitting	Unlikely	Moderate	Low	All licences in place.
Marketing	Doccible	Moderata	Modium	Mitigated by including commorpial standard
Sales terms alter significantly or	Possible	Moderate	Medium	Mitigated by including commercial standard



Risk Issue	Likelihood	Consequence	Risk	Comment and Mitigation
unable to sell due to product not meeting specification				trading terms, having multiple end users for product sales and good metallurgical accounting and commercial procedures
Unable to sell all of the magnetite production	Possible	Minor	Low	The annual production exceeds the annual supply in the local coal market. Mitigate by adjusting the operation through LOM and other market opportunity for sales
Financial and Economic				
Forecast metal production lower	Possible	Moderate	Medium	Mitigated by higher grades in early years, long life of the project to even out commodity price cycles, review of project cost sensitivities to understand possible impacts, cushioning impact of the AUD
Operating Costs Underestimated	Possible	Moderate	Medium	Underestimating the cost of mining, mill rectification, maintenance and labour required to operate at full capacity
Capital Cost Increase	Unlikely	Moderate	Low	Most of plant is constructed only E and I remaining, percent of total is less than 10 %. Mining is expected to go to some form of contracting which reduces the need for replacing existing mining equipment.
Inadequate allowance of working capital before positive cash flow	Likely	Moderate	High	May have insufficient funds to positive cash flow and for provision of additional funds to the Queensland government for Financial Assurance and thus need to raise further funds. Complete a detailed forecast and budget to take into account the commissioning and ramp up issues, commission on copper and cobalt flotation only.
Product Price	Possible	Minor	Low	Offtake Agreements currently in place. Hedging to consider, cushioning impact of the AUD



1.11 JORC TABLE 1

1.11.1 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	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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. 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.	The resource estimate is based on drill samples only, no surface samples were used. 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. RAB samples were deemed to be unrepresentative and prone to bias and were not used for resource estimation purposes. Only assay result results from recognised, independent assay laboratories were used for Resource estimation after QAQC was verified.



Criteria	JORC Code explanation	Commentary
Drilling techniques	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, facesampling bit or other type, whether core is oriented and if so, by what method, etc.).	 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. 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. Current practice is to use DD only in mineralised zones.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. 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.	 DD core recovery averaged 98% overall and exceeded 80% in 96% of the meters drilled in the mineralised zone. RC recovery was recorded as bag size estimate and bag weight for all samples RC - In most cases when chip recovery was poor and sample became wet the hole was stopped and a diamond tail was added. 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. 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.
Logging	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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged.	 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. 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. 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. Drill core was photographed after being logged by the geologist. Drill core not used for bulk metallurgical testing and RC drill chips are stored at the Rocklands site.
Sub-sampling	If core, whether cut or sawn and whether quarter, half or all core	• 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.



Criteria	JORC Code explanation	Commentary
techniques and sample preparation	taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. 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. Whether sample sizes are appropriate to the grain size of the material being sampled.	 Core was cut with a diamond saw, ½ core was used for NQ and BQ analysis, ¾ core was used for HQ and PQ analysis to standardise the sample size per meter. RC samples were split using a riffle splitter attached to the cyclone on the drill rig. 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. SGS Minerals Townsville Sample Preparation: 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. Native copper samples were prepared by 2 methods. Grain size of native copper determined which method was used. 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. 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. All other sampled material not containing native copper was pulverised to a nominal 90% passing 75μm. AMDEL Bureau Veritas Mt Isa Sample Preparation After receiving, checking and sorting samples were dried at 103°C for 6 hours. Core samples were put through a jaw Crusher and crushed to approximately -10mm. Sample was split if sample weight over 3kg. Rock chip samples weighing over 3kg were crushed with the use of a Boyde crusher and split with 3kg of material retained. Samples were pulverised for 5 minutes in an LMS until 90% passed through -106μm. Sample was split with the remaining pulp put in storage.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 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. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of	 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. 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). 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. 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. All analyses were carried out at internationally recognised, independent assay laboratories SGS, ALS, Genalysis, and Amdel Bureau Veritas. Quality assurance was provided by introduction of known certified standards, blanks and duplicate samples on a routine basis. 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



Criteria	JORC Code explanation	Commentary
	accuracy (i.e. lack of bias) and precision have been established.	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. 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. 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. 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 (>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. QAQC monitoring is an active and ongoing process on batch by batch basis by which unacceptable results are re-assayed as soon as practicable. An issue was found with early AAS sample grades for cobalt and a large number of these samples have been re-assayed as soon as practicable. A limited check assay program carried out in 2007 on 497 samples suggested that Cu may be
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 An umpire assay programme of 528 mineralised samples from 173 drill holes was completed by ALS Laboratories in 2007 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. All assay data QAQC is checked prior to loading into the CuDeco Explorer 3 data base. 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.
Location of	Accuracy and quality of surveys	All drill holes at Rocklands have been surveyed with a differential global positioning system (DGPS) to within 10 cm accuracy and



Criteria	JORC Code explanation	Commentary
data points	used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control.	recorded in the CuDeco Explorer 3 database. 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. Where surveys are dubious the hole was resurveyed, where possible, via open hole in non-magnetic material.
Data spacing and distribution	Data spacing for reporting of Exploration Results. 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. Whether sample compositing has been applied.	 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 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. 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. Holes have been drilled to 600 m vertical depth 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. 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. 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).
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 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.	 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 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. 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. 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.
Sample security	The measures taken to ensure sample security.	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.



Criteria	JORC Code explanation	Commentary
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	 CuDeco conducts internal audits of sampling techniques and data management on a regular basis, to ensure industry best practice is employed at all times. External reviews and audits of sampling have been conducted by the following groups; 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. 2010 – In early 2010 Hellman & 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&S but these were largely addressed by CuDeco and H&S regarded unresolved issues at the time of resource estimation as unlikely to have a material impact on future estimates. 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.

1.11.2 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
Mineral tenement and land tenure status	 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. 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. 	 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. Native Title Ancillary agreements have been signed with the Mitakoodi & Mayi peoples and the Kalkadoon peoples, the local custodians of the areas covered by the mining leases. 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 17th October, 2013.
Exploration done by	Acknowledgment and appraisal of exploration by other parties.	 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.



Criteria	JORC Code explanation	Commentary								
other parties										
Geology	Deposit type, geological setting and style of mineralisation.	of the Mt Isa Inlie with high-grade mineralisation ar affinities with Ire magnetite, persis	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.							
Drill hole Information	A summary of all information material to the understanding of									tails on the end of RC pre-collars, illing metres are correct.
	the exploration results including a tabulation of the following		Drilling Type		2010	2011	2012	2013	Total	
	information for all Material drill holes:		RAB	# holes	1514	499	1668	145	3826	
	 easting and northing of the drill 		IVAD	metres	7820	2819	18741.5	2211	31591.5	
	hole collar • elevation or RL (Reduced Level –		DD	# holes	239	111	235	28	613	
	elevation above sea level in		55	metres	47286.04	17386.68	24749.41	7507.9	96930.03	
	metres) of the drill hole collar • dip and azimuth of the hole		RC	# holes	1491	84	2		1577	
	 down hole length and interception depth 		NC .	metres	221263.1	9850.8	195.7		231309.6	
	• hole length.		Geotech DD	# holes			8		8	
	 If the exclusion of this information is justified on the basis that the 		Geotechibb	metres			182.6		182.6	
	information is not Material and		Open Hole	# holes			1	6	7	
	this exclusion does not detract from the understanding of the		Орентное	metres			285	1394	1679	
	report, the Competent Person should clearly explain why this is		Total	# holes	3109	684	1914	179	5886	
	the case.		Total	metres	276369.14	30056.48	44154.21	11112.9	361692.73	
										_
Data aggregation methods	 In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts 	 Intercepts from individual drilling programs have been reported by CuDeco in separate ASX announcements and are not repeated here. Informing Samples were composited to two metre lengths honouring the geological domains and adjusted where necessary to ensure that no residual sample lengths have been excluded (best fit). Metal equivalents are not used in domaining, but are reported. The formulae used are as follows CuCoAu equivalent grades were based on metal prices and metallurgical recoveries provided by CuDeco and refer to recovere equivalents: Cu 95% recoveryUS\$3.20 per Pound 								



Criteria	JORC Code explanation	Commentary
	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. The assumptions used for any reporting of metal equivalent values should be clearly stated.	 Co 90% recoveryUS\$18.00 per Pound Au 75% recoveryUS\$1200 per Ounce Magnetite 80% recovery US\$140 per Tonne The recovered copper equivalent formula was: Copper equivalent CuCoAu% = Cu % + Co ppm*0.000533 + Au ppm*0.431743 Copper equivalent CuEq% = Cu % + Co ppm *0.000533 + Au ppm *0.431743 + magnetite %*0.016711
Relationship between mineralisatio n widths and intercept lengths	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. 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'). 	 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. 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. Resource estimation, as reported later, was done in 3D space.
Diagrams	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.	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.
Balanced reporting	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.	 Resources have been reported at a range of cut-off grades, above a minimum suitable for open pit mining.



Criteria	JORC Code explanation	Commentary
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	Extensive work in these areas has been completed, and was reported by CuDeco in earlier statements to the ASX.
Further work	 The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	 Mineralisation is open at depth. Current estimates are restricted to those expected to be reasonable for open pit mining. Limited drilling below -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.

1.11.3 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
Database integrity	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. Data validation procedures used.	 The Rocklands database is a Microsoft Access based Explorer 3 database system. Data is logged directly into an Excel spreadsheet logging system with drop down field lists. 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. Digital assay data is obtained from the Laboratory, QAQC checked and imported into Explorer 3. 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. Data was validated prior to resource estimation by the reporting of basic statistics for each of the grade fields, including



Criteria	JORC Code explanation	Commentary							
		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.							
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case.	• 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.							
Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology.	 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. Orientation and grade of the known mineralised zones are clearly influenced by a combination of steeply dipping structurally controlled features, which may be spatially associated with largely sub vertical dolerite dykes, and shallowly dipping favourable lithological units. Controlling structures are sub-vertical and strike in a north-northwest orientation. 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. 							
Dimensions	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.	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. Mineralised domain extents (local grid) m East North RL							
				min	9350	9960	-425		
			All Resource	max	12375	14860	235		
			extent	3025	4900	660			
				min	9390	12100	-425		
			Main Corridor	max	12375	13175	235		
				extent	2985	1075	660		



Criteria	JORC Code explanation	Commentary
Estimation and modelling techniques	 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. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about correlation between variables. Description of how the geological interpretation was used to control the resource estimates. Discussion of basis for using or not using grade cutting or capping. The process of validation, the 	 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. Mineralised domains were digitised on cross sections defining boundaries for High-grade Cu as >0.5%Cu, Low-grade Cu as >0.1% Cu and Cobalt as >100ppm Co. The domains are nested. There are a total of 38 currently defined domains. The intervals for each drill flohe for each domain were tagged into database tables and used for compositing and selection of informing samples. Grade estimation of copper, gold, cobalt and magnetite in most mineralised domains used ordinary kriging (OK) into a parent block size of 6.25 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). 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 > 0.3, block grade = DD-RC IK grade. 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. Geological and grade modelling work encompassed all drilling. Modelling work was extended vertically to the limits of the current drill



Criteria	JORC Code explanation	Commentary
	checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	All tonnages are reported on a dry basis.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	 Lower cut-off grade of 0.1% Cu AND 0.2% CuCoAu were applied to blocks in reporting open –pit resources. Lower cut-off grade of 0.6% CuCoAu were applied to blocks in reporting underground resources. Total C1 costs (mining, milling and admin) for open pit mining are approximately \$18 per tonne of ore, which was based on a strip ratio of 3 to 1. Using weighted average prices for Cu Co and Au over the last 5 years and allowing for differential recoveries gives a cut-off grade of approx. 0.2% CuCoAu. Estimated C1 costs for underground mining were \$68 per tonne of ore, giving a cut-off grade of approximately 0.6% CuCoAu. Magnetite only open pit resources are reported above a minimum cut-off of 10%.
Mining factors or assumptions	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.	 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 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. Open pit resources are reported as those falling within the Whittle optimised pit shell. Potential underground resources are reported as those blocks lying underneath the Whittle optimised pit shell.
Metallurgical factors or	The basis for assumptions or predictions regarding metallurgical amenability. It is	 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. No significant impediments to the efficient recovery of Rocklands copper, cobalt, magnetite and gold minerals have been



Criteria	JORC Code explanation	Commentary										
assumptions	assumptions always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding	 encountered during the exhausting programme of laboratory and small and large-scale pilot processing testwork. 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. Concentrate products are above the minimum specification required to achieve full payment from smelters or other end users. The following procedures and processing techniques have been applied to Rocklands mineralised zones: 										
	metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be		Zone	Crush	Screen	Leach	Mill	Gravity Conc.	Floatation	Filtration		
	reported with an explanation of the basis of the metallurgical		Oxidised	٧		٧			٧			
	assumptions made.		Native Copper	٧	٧	l	٧	٧	٧	٧		
			Chalcocite	٧			٧		٧	٧		
			Primary	٧			٧		٧	٧		
		The following recovery valuestimation calculations:	es can be applied, Element/mineral		d on we	eighted		ges, acro		miner	alised zones to support resource	
			Recovery	g	95%	90%	ó	75%	75%	6		
Environmental factors or assumptions	• 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	Copper Project was issued enabled the commencemen The Project currently operat The environmental approva	by the Queensland t of the Project was ses under the Queen ls referred to abov	d Gove s issue nsland e allov	ernmen d on 31: I EA, Per w the Pr	t on 1s st Octo mit Nu roject t	st Augi ber, 20 imber I o oper	ust 2011 011. EPML008 ate at a	L and t 887913 n avera	he Env .ge pro	nent Plan for the Rocklands Goup vironmental Authority (EA) which cessing rate of 3.0 million tonnes e-rock dumps and tailings storage	



Criteria	JORC Code explanation	Commentary								
	reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.									
Bulk density	• Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size	 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. The mineralised zones exhibited a definable trend of increasing bulk density with copper and magnetite grade and this has been factored for resource calculations. Based on the results obtained, the following table is applied to the mineralised zones for resource estimation purposes: 								
	and representativeness of the samples.		Zone	Baseline (t/m3)	Cu% Factor	Magnetite ' Factor	%			
	 The bulk density for bulk material must have been measured by 		Oxide	2.38	0.657	0.0279				
	methods that adequately account		Semi Oxide	2.70	0.0620	0.0247				
	for void spaces (vugs, porosity,		Native Copper	2.50	0.0645	0.0267				
	etc), moisture and differences between rock and alteration		Chalcocite	2.75	0.062	0.0221				
	zones within the deposit. • Discuss assumptions for bulk		Primary Mineralised	2.9	0.0605	0.0227				
	density estimates used in the evaluation process of the different		Fresh	2.75	0.0625	0.242				
	materials.	The grade formula applied to the zone for resource estimation purposes is as follows:								
		Bulk Density = Baseline + %Cu*CuFactor + Magnetite%*MagnetiteFactor								
Classification	• The basis for the classification of	 Resource classification is based on number of informing samples, kriging conditional bias slope ("Slope") and search distance to informing samples. 								
	the Mineral Resources into	0 1	ed wireframes domai	ns are classified as	measured, indica	ted or inferred base	ed on the following criteria			
	varying confidence categories. • Whether appropriate account has		Measured - maximum number of informing samples, Slope >0.8							
	been taken of all relevant factors	 Indicated - maximum nu 								
	(ie relative confidence in tonnage/grade estimations,	 Inferred - block estimate 								
	reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).	Host lithologies between defined wireframe domains are known as "undomained". 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.								
	Whether the result appropriately reflects the Competent Person's view of the deposit.	• Magnetite-only material was also allocated in the "undomained" section of the deposit using the same criteria as described above. A cut-off of 10% magnetite was applied.								



Criteria	JORC Code explanation								Commenta	iry				
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	 CuDeco's internal review and audit of the February 2014 Mineral Resource Estimate consisted of data analysis an interpretation of over 210 individual cross-sections, comparing drill-hole data with the resource estimate block model Good correlation of geological and grade boundaries were observed, however some loss of resolution is observed grade results are present, due to the apparent smoothing of these results into surrounding blocks. No external audits or reviews of the mineral resource estimate were undertaken. Comparison with previous Mineral Resource estimate In November 2013 CuDeco released a mineral resource estimate prepared by Mining Associates Australia. CuCoAu equivalent grades were based on metal prices and metallurgical recoveries provided by CuDeco and refer t equivalents: Cu95% recoveryUS\$2.00 per Pound Co90% recoveryUS\$26.00 per Pound Au75% recoveryUS\$900.00 per Ounce Magnetite75% recoveryUS\$175 per Tonne The recovered copper equivalent formulae applied were: CuCoAu% = Cu % + Co ppm*0.001232 + Au ppm*0.518238 CuEq% = Cu % + Co ppm*0.001232 + Au ppm*0.518238 + magnetite %*0.035342 								block model. is observed when high				
		Cut-off Tonne Estimated Grade Copper Contain							tained Meta Equivalent	d Metal and ivalent				
			CuCoAu *	Mt	Cu	Со	Au	Ma g	CuCoAu*	CuEq*	Cu	CuCoAu*	CuEq*	
			%	IVIL	%	pp m	pp m	%	%	%	Mlb	Mlb	Mlb	
			0.20	272	0.1 9	214	0.0	5.9	0.5	0.7	1,125	2,962	4,208	
			0.40	96	0.4 5	308	0.1 3	4.6	0.9	1.1	959	1,902	2,244	
			0.80	30	1.0 1	466	0.2 1	4.8	1.7	1.9	681	1,140	1,253	
		 Since November 2013 there has been a decrease in tonnes, but an increase in copper, cobalt, gold and magnetite grades. It mostly due to the June 2015 resource reporting of open pit resources within a Whittle optimised pit shell (fxpe_35f_shell49. rather than the nominal depth of -250 m RL used in the 2013 resource. The pit shell extends to about -120 m RL and doe include all material to depth. The June 2015 resource also uses updated prices for calculation of copper equivalents, which also had some impact on reported resources. Note that the Total resource as reported in June 2015 also now include significant underground component not reported in 2013. An approach to the resource classification was used which combined both confidence in geological continuity (does not include the combined both confidence in geological continuity). 								(fxpe_35f_shell49.dtm) -120 m RL and does no r equivalents, which has 15 also now includes a				
Discussion of	Where appropriate a statement of the relative accuracy and													cation of the measured



Criteria JORC Code explanation	Commentary
relative accuracy/ confidence confidence	 indicated and inferred resource categories. "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. 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. 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. 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.

1.11.4 JORC Table 1 - Section 4 - Estimation and Reporting Ore Reserves

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

Criteria	Explanation	Assessment
Mineral Resource estimate for conversion to	Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.	■ 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.



0	01	The December Followship is a content black and of format with the content of the
Ore Reserves	 Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves. 	 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. The modelled resource grades do not incorporate dilution.
		 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 Archimedean Method, i.e. weight in air/weight in water.
		 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:-
		 Measured - maximum number of informing samples, bias slope of regression >0.8
		 Indicated - maximum number of informing samples, bias slope of regression >0.4
		 Inferred - block estimated within domain wireframes, minimum of 3 informing samples within maximum search of 300m. The unmined portion of the Ore Reserve is a subset of the unmined portion of the Resource.
		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.
		The Resource Estimate was provided to AMDAD in Surpac block model format.
Site visits	 Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	 John Wyche, Competent Person for overall Ore Reserves sign-off, undertook a site visit at Rocklands on 19th June 2014 including the following inspections: Rocklands open cut and waste rock dump areas Ore stockpiles Process plant (under construction)
	The type and level of study undertaken to enable Mineral Output Description:	 The Rocklands Ore Reserve Estimate has been prepared in conjunction with a Feasibility Study of the Rocklands Project by CuDeco and its consultants.
	Resources to be converted to Ore Reserves.	 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.
	The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert	 The Feasibility Study indicates a high degree of confidence that the project is technically and economically viable for the metal prices assumed.
Study status	Mineral Resources to Ore	The status of the Rocklands Project is outlined below:-
•	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.	 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. b) Construction of the processing plant and general site infrastructure is nearing completion.



 The basis of the cut-off grade(s) or quality parameters applied

- 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;
 - Copper, cobalt, gold and magnetite grades
 - Logged minerals present including;
 - copper species
 - pyrite content (used to estimate cobalt recovery)
 - Weathering profile (used to determine recoveries in the absence of logged minerals)
 - Magnetite content
 - Lithology
- 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.
- In the absence of sufficient information to determine recovered copper equivalent grades, the lowest recovery profile for each ore type is used.
- 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 once again into high-grade and low-grade versions.

Rocklands ore types:

oxide				chalc	ocite		primary					
oxi	ide	oxide +	- NatCu	chalc	ocite	chalcocite	e + NatCu	prim	nary	primary	primary + NatCu	
High	low	High	low	High	low	High	low	High	low	High	low	

- Ore is sent to the mill for processing (or stockpiled for later processing) if the following conditions are satisfied;
 - Oxide ore
 - Low-grade: Cu% >= 0.5% and Cu% < 1%
 - o High-grade: Cu>=1% Cu
 - All other ore types;
 - Magnetite waste: Cu<0.1% and Mag>=10% (not included in reserves)
 - Low-grade: Cu>0.1% and Species CuEq>=0.3% and Cu<0.5%
 - High-grade: Cu>=0.5%
 - The Spec_CuEq formula is defined by the following:

 $CuEq\% = \sum [(Copper species\%) \times (species copper content) \times (species copper recovery)]$

- + Co ppm x Co rec x PrCo / PrCu
- + Au ppm x Au rec x PrAu / PrCu
- + if(mag%<2,0,((mag% 2) * magrec * PrMgt / PrCu

for the recoveries and net prices tabulated below:-

Cut-off parameters



Metal	Copper Species	Recovery (rec)	Net Price	Net Price (Pr) per grade unit
	Bornite	92%		
	Chalcocite	92%		
Copper (Cu)	Chalcopyrite	95%	4 ¢2 20 /lb	A\$70.54/10kg
	Native Copper	95%	A\$3.20/lb	
	Malacite & Azurite	65%		
	Other oxides	65%		
Cobalt (Co)		Variable	A\$18.00/lb	A\$0.0397/g
Gold (Au)		75%	A\$1200/oz	A\$38.58/g
Magnetite (mag)		80%	A\$140/t	A\$1.40/10kg

Cobalt recovery at Rocklands varies depending on ore type and associated pyrite content. CuDeco uses a pyrite—to-cobalt ratio of 50:1 to determine if sufficient pyrite is present to support full recovery of the estimated cobalt content. If the pyrite—to-cobalt ratio is ≥ 100, a maximum cobalt recovery of 90% is applied, i.e. 90% x 100% = 90%. Recoveries reduce as the pyrite—to-cobalt ratio falls below 100. For example, if the pyrite—to-cobalt ratio is 70 the cobalt recovery is 90% x 70% = 63%. The formula used to calculate cobalt recovery is:

Cobalt recovery = If(CN / Co ppm > 0.9, 0.9, CN / Co ppm)

Where:

CL = (Py% * 100)

CM = (Py% * 100) - Co ppm

CN = If(CM > CL,Co ppm * Py rec, CL * Py Rec)

Note: CuDeco estimates pyrite recovery, Py Rec, to be 90%

Mining Factors and Assumption

- 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 optimisation or by preliminary or detailed design).
- 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.
- AMDAD considers this mining method and equipment selection to be appropriate to the terrain, ore and waste geometry and scale of mining.
- AMDAD ran a WhittleTM pit optimisation to guide the pit design. The pit optimisation was run using net metal prices of A\$3.84 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



- 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.
- The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.
- The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).
- The mining dilution factors used.
- The mining recovery factors used.
- Any minimum mining widths used.
- The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.
- The infrastructure requirements of the selected mining methods.

- shell will maximise undiscounted cashflow for the project but may be larger than the pit that would maximise discounted cashflow.
- 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:-
 - A tonnage dilution of 0%
 - A mining loss of 5%
 - An overall copper grade factor of 0.97
 - An overall metal factor of 0.92
- The Reserves are an estimate of the tonnes and grade of ore delivered from the open pits to the processing plant.
- 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 SurpacTM software.
- 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:

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°
RSE South	Below BOCO	20m	65°	10m	46°

PSM recommends the use of pre-split blasting methods, otherwise the designed slopes may not be achieved. As well, there is a requirement for ongoing geotechnical mapping during operations and modification of pit designs subject to "as encountered" ground conditions.

No geotechnical studies have been undertaken at Rainden (RD). Design parameters for RD pit are:

Avec	Dook	Bench	Batter	Berm
Area	Rock	Height	Angle	Width



	All Pits	Above BOCO	15m	55°	5m	
	LM Meta-sediments	Below BOCO	15m	70°	5m	-
were treated as w As well as excava higher value ore minimum mining AMDAD prepared	es were not included in the vaste. The Ore Reserves exclustion of initial haul roads with early in the mine life. The dwidth of 40m. This mining wid a life of mine (LOM) scheduls. CuDeco has confirmed the	de any Inferred Re hin the open pit for esigns for the pit dth is considered are based on the Ore	sources. potprints, the stages and th ppropriate fo Reserves est	open pit des ne pushback t r the selected	signs incorpora to the final pit I mining fleet.	ate staged pits to a t walls were based
 Water mai Heavy veh	ge and dispensing facility (con magazine (constructed)	g drains and sedime op facilities includ	ent ponds (co	nstructed)	e shop, weldi	ng shop and wareh



Metallurgical

Assumptions

Factors or

- The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.
- Whether the metallurgical process is well-tested technology or novel in nature.
- The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.
- Any assumptions or allowances made for deleterious elements.
- 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.
- For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?
- 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 (<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.
- 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 widediameter drill core from all parts and depths of Las Minerale and Rocklands South orebodies for the largescale pilot plant testing of the process flowsheet.
- The factors applied as a result of this programme are:
- Analysis of the concentrates produced during laboratory testing and full-scale trial processing indicated no concentrations of deleterious elements likely to attract smelter penalties.
- Bulk sample for pilot scale testing was obtained from

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Ore-type (code_copper)	Mill code	Recovery (Avi)	NC	cc	CFY	σx
cc	éc cu	20.00%	0.00%	54.40%	29.60%	16.00%
Chalcocite domain	CC Co	70.00%				
	CC Au	75,00%				
	CC Mag	80.00%				
	-2-		NC	ćć	CPY	OX
CPY	CPT CU	95,00%	0.00%	2.82%	95,83%	1,53%
General copper domain	CPTCo	20.00%				
(not just primary)	CFY Au	75,00%				
	CPY Mag	80.00%				
	-		NC	cc	CPY	ox
NC CC	NC CC CU	99.00%	59.68%	40.55%	10.55%	5.64%
Native copper domain	NO CC Ca	40.00%	32.55%	40,45%	20,88%	5,849
	NC CC Au	75.00%				
	NC CC Mag	\$0.00%				
	ó.		NC	cc	CPT	OX.
NC CPY	NC CPY CG	95,00%	20,97%	24.34%	60.19%	4.30%
Native copper domain	NC CPY Co	90.00%	20.27%	14.54%	80.10%	4.505
	NC CPY AL	75.00%				
	NC CPY Mag	80,00%				
			NC	cc	CFY	OX.
OX	ox cu	63.00%	p.00%	11.51%	8.54%	80.35%
	DX.Co	10.00%				
	OX Au	75.00%				
	QX Mag	50,00%				
			NC	cc	CPY	ΟX
NC OX	NC OX Cu	95.00%	28.72%	14.10%	4.59%	52,799
	NC CX Co	10.00%	28.72%	24.20%	2,57%	22.729
	NC OX AL	75,00%				
	NC DX Mag	80,00%				
	1		NC.	CC	CFY	.0%
Undefined	Undefined Cu.	25.00%	2.04%	17.86%	52.65%	47,45%
Undefined domain - no NC	Undolved Co	63.00%	-			
(mineralisation outside of orebodies)	Undefined Au	75.00%				
	Undefined Mag	80.00%				
SAME	Therese		NC	cc	CPY	ΩX
MinW	MinW Cu	50.00%	2,04%	17,86%	52.65%	47.45%
Undefined domein	MinW Co	80,00%	2.04%	17.00%	12,65%	47.459
(mineralisation outside of orebodies)	MinW Au	75,00%				
	MinW Mag	80.00%				
22 26	The same of the sa		NC	cc	CPY	(0%)
MagW	MagW Cu	80.00%	0.00%	D.00%	100.00%	0.00%
Undefined domain	MagW Co	80.00%				
(mineralisation outside of orebodies)	MagN Au	75.00%				
	MagW Mag	80.00%				



		,
		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.
		 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.
	The status of studies of potential	Environmental Legislation – Commonwealth
	environmental impacts of the mining and processing operation.	Mining activities are also regulated by the Commonwealth Government under Environment Protection and Biodiversity Conservation Act 1999 (Cth).
	Details of waste rock characterisation and the consideration of potential sites, status of design options	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.
	considered and, where applicable, the status of approvals for process	The requirement to submit an Environmental Impact Statement (EIS) is implemented through the EPBC Act.
	residue storage and waste dumps	Environmental Impact Statement
	should be reported.	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.
		Environmental Legislation - State
Environmental		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."
		Environmental Authorities for mining activities
		The Environment Protection Act 1994 (EP Act) regulates mining activities by the issuing of an environmental authority (EA) for mining activities which are:
		an activity that is an authorised activity for a mining tenement under the MR Act; or
		• another activity that is authorised under an approval under the MR Act that grants rights over land. 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.
		Plan of Operations
		A standard condition of an EA approval requires the preparation of a plan of operations. 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.



Environment licencing

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 19th 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.

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 & Wilkinson since 2013.

Environmental Approvals –Rocklands

The Environmental approval process as required by the State of Queensland.

CuDeco has completed this process and has continually maintained its licencing requirements. Table over the page exhibits CuDeco's Environmental Approval history and amendments.

CuDeco's Environmental Approval history and amendments

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 Biodiversity offsets TSF	
Amended EA approved 19/12/2014 Changes to: December 2014 (current EA) • Ambient air quality • Meteorological monitoring • Inclusion of Copper		



	 Inclusion of continuous solar air quality monitoring method Schedule D-Regulated dams Classifications of regulated dams reviewed Schedule E-Waste Extension to East waste rock dump Schedule F-Noise Noise limits and monitoring frequency Air blast and ground vibration monitoring requirements Schedule G-Water Add in new bores Amendments to trigger and contaminant limits
December 2015	CuDeco is currently preparing a new EA amendment. 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. An updated Plan of Operations shall be completed following the approval of this EA amendment.

CuDeco Plan of Operations

Document Number	Title	Date	Author
CDU-ENV-PLN-0002	Plan of Operations March 2012-December 2012	29/03/2012	CuDeco Ltd
CDU-ENV-PLN-0002	Plan of Operations January 2013 – June 2013	29/04/2013	CuDeco Ltd
CDU-ENV-PLN-0002	Plan of Operations July 2013 –December 2013	19/06/2013	CuDeco Ltd
CDU-ENV-PLN-0002	Plan of Operations September 2013 –December 2014	20/09/2013	CuDeco Ltd
CDU-ENV-PLN-0002	Plan of Operations October 2014 – November 2015	30/10/2014	CuDeco Ltd
CDU-ENV-PLN-0002	Plan of Operations January 2015 – December 2015	19/01/2015	CuDeco Ltd
CDU-ENV-PLN-0002	Plan of Operations December 2015 – May 2017	20/11/2015	CuDeco Ltd

End note

CuDeco's current Environmental Authority to operate, granted through the Queensland Department for Environment and Heritage Protection (EHP) will continue to be implemented throughout the planned life of the operation. This licence is renewed annually through the official EHP annual return notification procedure.



		It is envisaged that CuDeco may apply for amendments to the Environmental Licence during the operational life of the project; this will be to update and better develop and manage site specific data trigger levels and contaminant limits. Following each approved EA amendment a new Plan of Operations shall also be lodged for review with EHP for approval before on ground works begin.
		This method of approval should not affect ongoing site infrastructure development and operation as outlined in the December 2015 feasibility study.
		The following is a list of supporting documents/files for waste rock and tailings management:
		Tailings and Surface Water Management DFS PE801-00089_03 Tailings and Surface Water Management DFS (RevA).pdf
		 Summary of Tailings Geochemical Test Results PE801-00089 EMEM008 Mejt11001 Summary of Tailings Geochemical Test Results.pdf
		Waste Rock Geochemistry REV A PE801_00089_04 Waste Rock Geochemistry Rev A.pdf
		 Second Phase Waste Rock Geochemistry REV C Complete PE801_00089_06 Second Phase Waste Rock Geochemistry Rev C Complete.pdf
		Third Phase Rock Geochemistry REV B PE801_00089_09 Third Phase Waste Rock Geochemistry Rev B.pdf
		CD Issued to Hutch CD issued to Hutch (230712).zip
		WASTE ROCK CHARACTERISATION
		Knight Piésold provided design parameters and construction guidelines for the Rocklands waste rock dump (WRD). Waste rock characterisation work by Knight Piésold found that:-
		The main waste domains are dolerite, sediment, breccia, calcareous, quartz sediment, meta-sediment and cover material comprising colluvial, alluvial and ferricrete and calcrete rocks.
		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.
		Waste rock generally has a low to moderate sulphide content.
		 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.
		Approximately 7% of the waste to be mined will require placement within an engineered PAF storage area.
		Different domains present varying degrees of acid production/consumption.
Infrastructure	The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly)	CuDeco owns, or leases, and has already established all necessary office facilities in Southport, Cloncurry and on site at Rocklands. This includes:
	for bulk commodities), labour, accommodation; or the ease with	 Head Office (Southport, Qld) Regional Office (Cloncurry, Qld)



which the infrastructure can be provided, or accessed.

- Operations Office facilities (Rocklands Project Site)
 - Mining & Administration Office
 - Processing Office & Control Room
 - Mobile Maintenance Office

The Rocklands Site Facilities include crib rooms, ablution blocks, training facilities, workshops and storage areas.

Accommodation

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.

Maintenance Facilities

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.

Explosives Infrastructure & Magazines

CuDeco has facilities and licensing in place to store all IE & HE required for the life of the project. Magazine capacity is 40000 detonators and 20 tonnes of IE accessories and storage for up to 280 tonnes of HE.

Infrastructure Water Supply

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.

Production Water Supply

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.

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.

Water Storage

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



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.

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.

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.

Potable Water Supply, Treatment and Dispersal

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.

Raw Water Supply and Dispersal

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.

Current Sustainable Flow Rates from Production and Dewatering Bores

HOLE ID	BORE TYPE	LOCATION	PUMP SIZE	SUSTAINABLE FLOW
MH1	Production	Northern Boundary	4"	5L/s
NVB066	Production	Solsbury Hill	6"	10L/s
PB001	Dewatering	Turkeys Nest 1	6"	8L/s
MB02	Dewatering	Haul Road/LM Pit East	6"	8L/s
MB13	Dewatering	Haul Road/LM Pit East	6"	8L/s
NVB019	Dewatering	SRE Pit East	4"	5L/s
SRE1	Dewatering	SRE Pit West	4"	5L/s
NVB045	Production	Fox Mountain	6"	15L/s

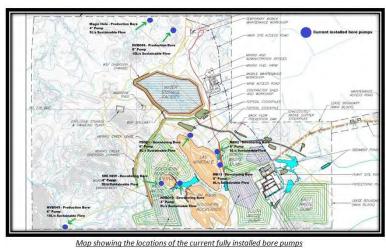
Table showing the current sustainable flow rates from installed bore pumps

Proposed/Future Sustainable Flow Rates from Production and Dewatering Bores



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

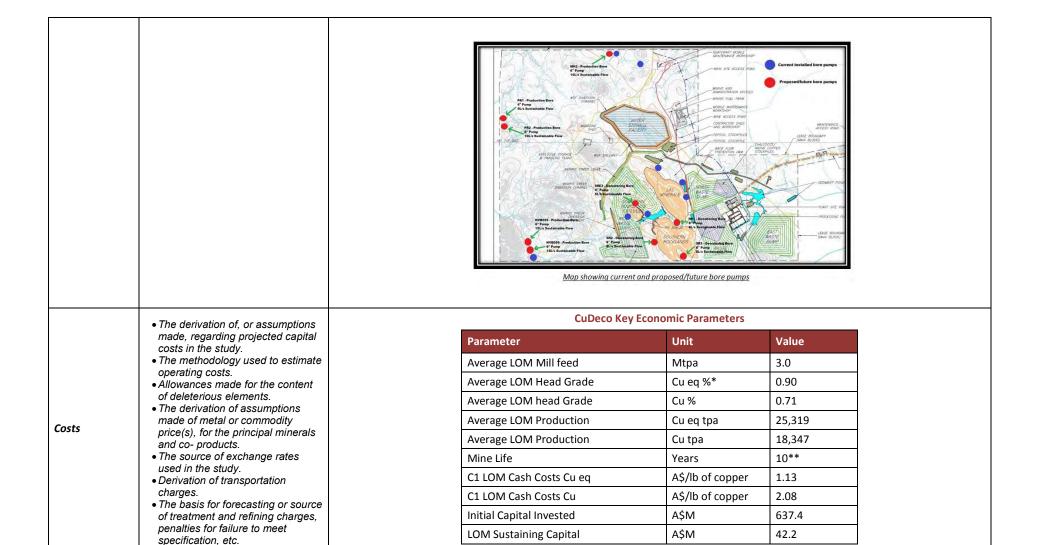
HOLE ID	BORE TYPE	LOCATION	PUMP SIZE	SUSTAINABLE FLOW
MH2	Production	Northern Boundary	6"	10L/s
PR1	Production	Western Boundary	4"	5L/s
PR2	Production	Western Boundary	6"	10L/s
NVB055	Production	Fox Mountain	6"	15L/s
NVB056	Production	Fox Mountain	6"	15L/s
SRE2	Dewatering	SRE Pit North	4"	5L/s
SR1	Dewatering	SR Pit North	6"	8L/s
SR2	Dewatering	SR Pit West	6"	8L/s



SR3 Dewatering SR Pit South 6" 8L/s

3 March 2016







 The allowances made for royalties
payable, both Government and
private.

LOM Sales revenue	A\$M	1,930
Net Cash flow before tax	A\$M	631
Net Profit LOM after tax	A\$M	112
NPV before Tax @ 8 %***	A\$M	465
NPV after Tax @ 8 %***	A\$M	405
IRR after tax	%	0.2
LOM Exchange rate	AUD/USD	0.711

^{* -} copper equivalent includes cobalt, gold and magnetite, see Section 15, JORC Table 1 for details of this calculation.

The total estimated capital costs are capital costs to achieve commercial production, including practical construction completion, commissioning and an allowance for working capital to reach surplus cash flow.

CuDeco Capital Costs estimate for the Project (\$000s)

Cost Category	AUD (\$000's)	AUD (\$000's)	AUD (\$000's)
Project Pre- Development Costs (Including Exploration up to granting of			83,764
Mining Leases)			
Capital Costs of Project Construction (from granting of Mining Lease to			
December 2015:			
Process Plant		276,901	
Land & Buildings		16,962	
Other Plant & Equipment and Mining Assets		46,268	
Mine Development Expenditure			
Overburden removed	62,628		
Cost of Ore Stockpiles	17,590		
Environmental rehabilitation provision	6,246		

^{** -} Based on resources the mine life is expected to be extended

^{*** -} NPV excludes any debt repayments and/or funding revenue/payments



Corella Park and Burke Roads construction	3,116		
Tails Dam	5,234		
Costs of Infrastructure assets	54,960		
Total Mine Development Expenditure		149,774	
Total Project Capital Costs to December 2015			489,905
Estimated Capital and Operating Costs to surplus cash flow			63,726
Total Estimated Costs from Commencement of Exploration to			
Completion			637,396

Approximately \$44M of the \$64M in costs to surplus cash flow is a back payment to the EPC contractor for works already completed. Life of Mine (LOM) Capital Costs are estimated as follows:

CuDeco Life of Mine Capital Costs estimate for the Project (\$000s)

Life of Mine Capital	AUD (\$000's)
Capital costs to date	573,670
Capital and Operating Costs to Surplus Cash Flow	63,726
Sustaining Costs	42,227
	679,623

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.

- 1. 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.
- 2. Processing throughput is 3.0 million tonnes per annum

All costs are reported in Australian dollars (AUD), unless otherwise specified. Exchange rate used - \$0.711 AUD to USD (weighted average).

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 whist 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 includes Company Secretary, Administration and Finance.

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 bypassed, saving processing costs associated with the jigs.

LOM operating costs are shown below. TC/RC is for Copper, Native Copper, Pyrite, Gold, Silver and Magnetite. Transportation is for all products from Rocklands Project to Townville Wharf and is based on the Townsville Bulk Storage and Handling (TBSH) contract.

Life of Mine Operating Costs (\$000s)



Cost Category	(\$000's)	Unit Cost (\$/t mined)	Unit Cost (\$/t milled)
Mining			
Grade Control and Assay	21,054	\$0.15	\$0.76
Mining Overheads/Administration (inc Survey)	66,781	\$0.47	\$2.41
Maintenance	99,258	\$0.70	\$3.58
Dig and Load	38,706	\$0.27	\$1.40
Stockpile to ROM	5,543	\$0.04	\$0.20
Drill and Blast	99,040	\$0.70	\$3.57
Haulage	105,463	\$0.74	\$3.80
Total Mining	435,845	\$3.06	\$15.72
Processing			
Power	174,076		\$6.28
Op Labour	90,056		\$3.25
Maintenance (Capital replacement)	21,586		\$0.78
Maint Labour	23,750		\$0.86
Consumables	56,496		\$2.04
Lab Assays	2,924		\$0.11
Total Processing	368,888		\$13.30
Subtotal	804,733		\$29.02
General & Administration	66,438		\$2.40
Transportation	116,305		\$4.19
Royalties	80,046		\$2.89
RC/TC	231,747		\$8.36
Contingency	-		\$0.00
Subtotal	494,535		\$17.83
Total Operating Costs	1,299,268		\$46.85

AUD/USD Exchange rate linked to gold, iron 0re & coal prices with a start price of 0.715



	1	Concentrate t	rancnor	rt cost (E(ΣΡ/+\ _ Λ	\$04.00										
			•	•			22									
		Cu Treatment		-												
		Treatment & I	Refining	Costs pe	r pound	(CuEq - a	v all pro	ducts) – A	\$0.44							
		Gold – 1 g/t														
		Silver – 30 g/t														
			-	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	0.708	0.715	0.720	0.720	0.714	0.711	0.710	0.706	0.702	0.699	0.695	0.691
		Commodity Price	es es	000/1100	0,700	07710	01720	01720	07727	07711	017 20	377 00	577 GE	0.033	0.035	01031
		Copper		USD/lb	2.68	2.19	2.30	2.46	2.42	2.52	2.79	2.84	2.90	2.95	3.01	3.07
		95%	Payable	AUD/t	7,940	6,424	6,679	7,156	7,093	7,417	8,236	8,435	8,643	8,859	9,081	9,319
		Cobalt		USD/lb	14.67	11.90	12.22	14.05	14.66	14.71	14.98	15.27	15.52	15.79	16.01	16.27
		90%	Payable	AUD/t	41,187	33,009	33,682	38,727	40,704	41,032	41,862	42,913	43,827	44,849	45,718	46,735
		Calc Sulphur		USD/t	20	115	11	11	11	11	11	11	11	11	11	11
			Payable	AUD/t	23	129	12	12	12	12	12	12	12	12	12	12
		Gold		USD/oz	1,052	1,138	1,138	1,066	1,058	1,049	1,041	1,033	1,024	1,016	1,008	1,000
			Payable	AUD/oz	1,412	1,511	1,501	1,407	1,407	1,401	1,393	1,390	1,385	1,382	1,378	1,375
				AUD /:												
		Magnetite		AUD/t	56	45	46	49	51	53	56	58	61	63	66	69
		Silver		USD/oz	15	15	15	14	15	15	15	15	16	16	16	16
		95%	Payable	AUD/oz	20	19	19	19	19	20	20	21	21	21	22	22
Revenue factors	 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. The derivation of assumptions made of metal or commodity 															



	price(s), for the principal metals,	PHYSICALS	Unit	Total	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
	minerals and co-products.	Ore Mined/Processed													
	mmoralo ana do producto.	Ore Mined	(000's t)	142,304	460	16,985	20,000	25,000	20,000	20,000	20,000	19,859			_
		Ore Processed	(000's t)	27,734	240	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	494
			(00031)	27,754	240	3,000	5,000	3,000	3,000	3,000	3,000	5,000	3,000	3,000	454
		Production													
		Copper		452.740		20.277	40.000	46747	42.455	22.245	45.450	45.550	40.575		
		Prim Cu Recovered to Con	t	163,719	3,248	38,377	19,089	16,747	13,466	22,316	15,159	15,663	12,675	5,992	987
		Head Grade - CuEq	%	0.90	2.28	1.90	0.90	0.82	0.81	1.18	0.82	0.76	0.62	0.28	0.28
		Head Grade - Cu Conc Grade Equ	% %	0.71 <i>29.76</i>	2.22 29.76	1.65 <i>29.76</i>	0.77 <i>29.76</i>	0.63 <i>29.76</i>	0.55 <i>29.76</i>	0.87 <i>29.76</i>	0.57 <i>29.76</i>	0.59 <i>29.76</i>	0.51 <i>29.76</i>	0.25 <i>29.76</i>	0.25
		Recovery - Nat Cu	% %	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	29.76 0.95
		Native Copper	70	0.93	0.95	0.93	0.93	0.95	0.95	0.95	0.93	0.93	0.93	0.93	0.93
		Native copper Nat Cu Recovered to Con	t	19,750	1,811	8.060	1,889	868	2.185	2,271	1.190	1,012	318	125	21
		Recovery	%	100	100	100	100	100	100	100	1,150	1,012	100	100	100
		Cobalt	76	100	100	100	100	100	100	100	100	100	100	100	100
		Cobalt Recovered to Con	+	7,286	_	1,445	634	740	882	1,142	873	577	551	379	62
		Head Grade	ppm		813.6	674.1	323.1	316.6	378.9	449.3	338.2	226.1	280.1	210.4	210.4
		Recovery	%	83.70	83.70	83.70	83.70	83.70	83.70	83.70	83.70	83.70	83.70	83.70	83.70
		Calc Sulphur / Pyrite (50%)													
		Produced	t	275,334	_	58,547	25,462	28,996	33,521	41,234	38,490	25,105	13,515	8,984	1,480
		CU Credit (Pyrite)	t	7,161	_	1,488	855	726	550	910	607	638	697	591	97
		AU Payable in Conc	OZ	1,897	_	-	254	389	-	258	-	370	626	-	_
		Content as % of Pyrite	%	<i>53.0</i> 0	53.00	53.00	53.00	53.00	53.00	53.00	53.00	53.00	53.00	53.00	53.00
		Gold													
		Produced	OZ	77,131	1,555	13,306	8,443	8,996	6,983	8,958	6,862	8,635	8,703	4,028	664
		Head Grade	oz/t	0.14	0.33	1.59	0.59	0.45	0.44	0.69	0.53	0.58	0.57	0.25	0.25
		Recovery	%	75. <i>0</i> 0	75.00	75.00	<i>75.00</i>	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00
		Magnetite													
		Produced	t	695,104	-	62,989	73,568	72,374	109,557	127,342	104,342	70,957	43,266	26,365	4,344
		Head Grade	%	6.71	3.89	9.04	6.13	6.03	9.13	10.61	8.70	5.91	3.61	2.20	2.20
		Recovery	%	87.42	87.42	87.42	87.42	87.42	87.42	87.42	87.42	87.42	87.42	87.42	87.42
		Silver													
		Produced	OZ	58,985	716	-	2,649	9,170	5,977	1,315	2,733	9,814	17,527	7,800	1,285
		Commodity Prices													
		Copper	AUD/t	7,940	6,424	6,679	7,156	7,093	7,417	8,236	8,435	8,643	8,859	9,081	9,319
		Cobalt	AUD/t	41,187	33,009	33,682	38,727	40,704	41,032	41,862	42,913	43,827	44,849	45,718	46,735
		Calc Sulphur / Pyrite	AUD/t	151	129	131	141	148	149	152	156	160	163	166	170
		Gold	AUD/oz	1,412	1,511	1,501	1,407	1,407	1,401	1,393	1,390	1,385	1,382	1,378	1,375
		Magnetite	AUD/t	56	45	46	49	51	53	56	58	61	63	66	69
		Silver	AUD/oz	20	19	19	19	19	20	20	21	21	21	22	22
	The status of a control of the contr	CuDeco has signed	an offt	ake agree	ement fo	r 60% of	the sulp	hide con	centrates	s, coppe	r and co	balt/pyri	te under	normal	smelter
	• The status of agreements with key	terms.		-			·								
Market	stakeholders and matters leading	 CuDeco is in contin 	uina no	antistion	c rogardi	ng tha r	mainina	10% Ale	o cianod	ic an of	ftaka aa	raamant	for up t	o 40 000	tonnes
Assessment	to social licence to operate.							40/0. AIS	o signed	is all UI	itake ag	i eement	ioi up t	0 40,000	torries
	•	per annum of native													
		 A Heads of Agreem 	ent has	been sigr	ned for ar	n offtake	for the fi	ne magn	etite by a	an Austra	alian ma	gnetite ti	rader.		
		1							•			_			



Economic	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. NPV ranges and sensitivity to variations in the significant assumptions and inputs.	 A financial model was prepared using inputs generated in the Feasibility Study and summarised elsewhere in this Table. The Base Case inputs from the Feasibility Study generate a net present value of over A\$400 million after tax but excluding financing costs. 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. The financial model considers capital, operating and revenue cash flows with production commencing in 2016. All costs prior to 1 July 2015 are treated as sunk.
Social	The status of agreements with key stakeholders and matters leading to social licence to operate.	 Conduct and Compensation Agreement has signed with the landholder and remains in place for the 30-year life of the mining leases. 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. Road use agreements have been signed with the Cloncurry Shire Council and with Transport and Main Roads, Queensland.
Other	 To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: Any identified material naturally occurring risks. The status of material legal agreements and marketing arrangements. 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 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 	 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. There are no outstanding legal agreements that are likely to have a material impact on the Project. 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.



	reserve is contingent.										
Classification	The basis for the classification of the Ore Reserves into varying confidence categories. Whether the result appropriately reflects the Competent Person's view of the deposit. The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	categoriIn all ot environ and Pro Mineral and the	geotechnical information for a sm zing the Measured Mineral Resou her areas the contributing exper mental, social and permitting ass bable Ore Reserves. The confider Resources. The estimated Prove the estimated Probable Ore Reserven no noted above.	arce in these areas as part of rts have confirmed that the umptions are considered to nce category applied to the ed Ore Reserves are the ec	of the Properties of the Critical of the Act at a community of the Creater of the Creater of the Properties of the Prope	obable Or If mining, If high lev Serves the Ily minea	re Reserve metallurg el of confi erefore con ble part of	ical, infra dence con rresponds f the Mea	estructure, co mmensurate s with the cate asured Minera	st, revenue, with Proved egory of the al Resources	
Audits or reviews	The results of any audits or reviews of Ore Reserve estimates.	generat other au	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.								
	Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an	Resourc	from 5m composite sampling of e model, notwithstanding compa of Resource and Grade Control re	rative fluctuations between	n differe 15:	nt ore typ	es.	grid) is o	correlating w	ell with the	
	approach or procedure deemed					Co		Mag	Spec CuE		
	appropriate by the Competent Person. For example, the		Source/Destination	TONNES TO STOCKPILE	Cu%	ppm	Au g/t	%	q%		
	application of statistical or		Dig-plans	2,277,747	1.02	546	0.17	2.65	1.09		
	geostatistical procedures to quantify the relative accuracy of		Stockpiles	2,247,410	1.03	534	0.16	2.76	1.04		
Discussion of	the reserve within stated		Mining loss (ore loss):	-1.33%	loss		** i	n the abs	ence of		
relative	confidence limits, or, if such an approach is not deemed		Mining dilution (grade loss):	0.92%	gain		•		grades and		
accuracy /confidence	appropriate, a qualitative		Overall metal factor:	99.57%	0		tonnes	should be estimate	e treated as		
	discussion of the factors which could affect the relative accuracy							Cotimati		J	
	and confidence of the estimate.		Conv	ersion of RESOURCE to dig	plans (gi	ade cont	rol)**			1	
	The statement should specify whether it relates to global or local estimates, and, if local, state the	Source/Destination TONNES TO STOCKPILE Cu% Co ppm Au g/t Mag Spec_CuE q%									
	relevant tonnages, which should		Resource	1,973,532	1.19	565	0.18	6.05	1.27]	
	be relevant to technical and economic evaluation.		Dig plan	2,277,747	1.02	546	0.17	2.65	1.09		
	Documentation should include assumptions made and the		Ore gain/loss:	15.41%	gain		** i	n the abs	ence of		



procedures used.

- 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.
- 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.

Grade gain/loss:	-14.60%	loss	production data, grades and
Overall metal factor:	98.56%		tonnes should be treated as
			estimates.

Conversion of RESOURCE to stockpiles (grade control, mining & ore control)**									
Source/Destination	TONNES TO STOCKPILE	Cu%	Co ppm	Au g/t	Mag %	Spec_CuE q%			
Resource	1,973,532	1.19	565	0.18	6.05	1.27			
Stockpiles	2,247,410	1.03	534	0.16	2.76	1.04			
Ore gain/loss:	13.88%	gain		** in the absence of					
Grade gain/loss:	-13.82%	loss	production data, grades and tonnes should be treated as estimates.						
Overall metal factor:	98.14%								

Internal audits consisted of the following;

Grade:

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.

Tonnes

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, well with less than 5% differences between each.