# MINERAL RESOURCE AND ORE RESERVE STATEMENT

## Introduction

Coda Minerals Limited (Coda) is pleased to present the Mineral Resource and Ore Reserve statement and summary of mining tenure held by the company as at 30 June 2020. All Mineral Resources are located within the Elizabeth Creek project, which Coda holds in partnership with Terrace Mining Pty Ltd (Terrace, a subsidiary of Torrens Mining (Torrens)). All Resources are reported at a 100% basis.

## **Mining Tenure Summary**

As of 30 June 2020, Coda owns an interest in three exploration tenements in South Australia which collectively make up the Elizabeth Creek (formerly Mt Gunson) project. Coda is currently farming-in to these tenements under the Mt Gunson Farm-in Agreement, executed on 17 March 2017, with Terrace. This agreement gives Coda the exclusive right to earn up to 70% interest in the project via the expenditure of \$6.62 million during exploration, and the option to purchase another 5% via the exercise of an option for \$1.5 million.

#### Table 1 Coda Tenure Holdings

Tenement	Registered Holder / Applicant	% Held	Grant Date	Expiry Date	Area
EL 5636 (formerly EL 4460)	Coda Minerals Ltd (ACN 625 763 957)	51%	25 March	24 March 2020 <sup>1</sup>	401 km²
	Terrace Mining Pty Ltd (ACN 161 377 340)	49%	2015		
EL 6141 (formerly EL 5108)	Coda Minerals Ltd (ACN 625 763 957)	51%	29 October	28 October 2022	47 km <sup>2</sup>
	Terrace Mining Pty Ltd (ACN 161 377 340)	49%	2017		
EL 6265 (formerly EL 5333)	Coda Minerals Ltd (ACN 625 763 957)	51%	7 October	6 October	201
	Terrace Mining Pty Ltd (ACN 161 377 340)	49% 2018		2020 <sup>2</sup>	291 km <sup>2</sup>

<sup>1</sup>Application 2019/00165 for subsequent exploration licence lodged by Coda and Terrace on 23 December 2019. The application was accepted on 6 May 2020 but the outcome of the application is still pending.

<sup>2</sup> Form 29 renewal application was submitted for subsequent exploration licence by Coda and Terrace on 30 June 2020. The application was accepted on 31 August 2020 but the outcome of the application is still pending.

### **Mineral Resource Summary**

The Windabout and MG14 Cu-Co-Ag deposits are located in the Mt Gunson district of South Australia on EL 5636.

The Windabout and MG14 deposits are sediment-hosted copper-cobalt-silver sulphide deposits formed through the replacement of diagenetic pyrite within dolomitic shales of the Tapley Hill Formation. Both deposits have similar origins, morphology and mineralogy and are about 6.5km apart. The historic Cattle Grid Cu-Cu-Ag mine, which operated for 10 years from 1974, is centred about 1km south of MG14.



The Windabout deposit forms a flat, tabular, triangular shaped sheet extending approximately 2km east-west and 1km north-south, varying in thickness between 2 and 8m. The deposit is hosted mainly by black shales of the flat-lying Tapley Hill Formation and is located under a cover sequence of semi consolidated Whyalla Sandstone, at a depth between 55 and 85m.

The MG14 deposit also forms a tabular, horizontal, triangular shaped sheet hosted by the Tapley Hill Formation, extending 1.4km east-west by 0.4 km north. The deposit is 3- 8m in thickness and is located approximately 20-25m below surface beneath the Whyalla Sandstone.

Mineralisation in both deposits consists of fine grained, chalcocite-bornite-chalcopyrite- covelite-pyrite-carrolite-galena-sphalerite in a gangue of dolomite, clay/sericite, quartz and siderite.

The depth and morphology of the mineralisation is amenable to low cost rip, load and haul open cut mining. Metallurgical test work completed by Ian Wark Research Institute in 2009 indicates a recovery of 66.7% from sulphide flotation. Test work commissioned by Torrens suggests that a process of conventional sulphide flotation, followed by a glycine/cyanide leach for copper, would be capable of producing overall recoveries of about 90%. Coda Minerals is currently undertaking an updated metallurgical testwork programme to confirm flowsheet designs to be carried forward into pre-feasibility studies.

The MG 14 and Windabout deposits were first identified in the 1970's after step out drilling from the Cattle Grid deposit. Much of the data used for this estimate was acquired by diamond and RC drilling completed between 1973 and 1995 by previous operators. The Windabout Database contains 221 drillholes (167 RC the remainder diamond) for 18,712.7m and the MG14 database contains 210 mainly diamond drillholes for 1168.8m. An additional 15 HQ diamond holes were drilled by Gunson Resources Limited in 2007 and 2010 and a further 33 by Gindalbie Metals in 2017.

Historic diamond core was cut with a diamond saw on 0.5m splits. Historic RC holes were riffle split and assayed on 0.5m splits within mineralised zones. Recent drill core was crushed, and a sub-sample split for pulverizing and analysis. Historic drill samples were analysed at various commercial and mine site laboratories. Analytical methods are not fully documented but assumed to be wet chemical (AAS) analysis. Recent drill core was assayed by Bureau Veritas by XRF, with check analyses at Nagrom by ICP\_OES.

QAQC of the recent drilling program used industry standard insertion of certified reference standards, blanks, duplicates and external laboratory analysis. All QAQC measures indicate that the recent drilling data is of excellent quality and suitable for resource estimation. There was very limited QAQC data available for the Windabout Historic data and none for MG14. Percentile plots of 0.5m composited data comparing recent and historic data sets highlight a negative bias to the historic data. This suggests the estimated grade may be slightly lower than the real value due to the reliance of much of the estimation on the historic data. Drilling, logging and analytical procedures are not considered to present any material risk to the estimation of Mineral Resources on a global level.

Bulk density determinations were made on drill core samples from the Gindalbie Metals drilling program using the Archimedes method on wet core to determine the sample volume then drying and weighing the sample to determine the dry bulk density. The average of the bulk density determinations minus the top and bottom samples was assigned to the block model.

An ordinary kriged block model resource estimation has been completed for both the Windabout and MG14 deposits, based on historic and recent diamond and RC drilling. Solid models of mineralised domains were created on 50m or 100m north-south drill sections from downhole lithology and drill hole grades. Sectional continuity for both deposits is excellent and poses no material risk to resource estimation.



Analyses for Cu, Co and Ag from the drillhole samples were composited on 0.5m lengths. Univariate statistical analysis demonstrates a low coefficient of variation and no top cutting was considered necessary, with the exception of a few high Co values in the Windabout deposit which were cut to 2555ppm.

Two blockmodels were constructed using a 25mN x 25mE x 1mRL parent block with sub-celling to 6.5m in the x and y directions and 0.5m in the z direction. Only parent block grades were estimated. The search ellipse was determined from Cu, Co and Ag variography and the interpolation was constrained by the wireframe boundary.

The Windabout and MG14 Mineral Resources (the resources) are classified and reported according to the guidelines of the 2012 edition of the JORC Code are listed in Tables 2 and 3.

Table 2 Windabout Indicated Resource

Cu_eq > 0.5% cutoff				Cu	_eq > 1.0% c	utoff			
Mt	Cu %	Co ppm	Ag g/t	Cu_eq %	Mt	Cu %	Co ppm	Ag g/t	Cu_eq %
17.67	0.77	492	8	1.41	11.86	0.95	599	10	1.73

#### Table 3 MG14 Indicated Resource

Cu_eq > 0.5% cutoff				Cu	_eq > 1.0% c	utoff			
Mt	Cu %	Co ppm	Ag g/t	Cu_eq %	Mt	Cu %	Co ppm	Ag g/t	Cu_eq %
1.83	1.24	334	14	1.67	1.59	1.33	360	15	1.8

Classification of the Windabout and MG14 deposits takes into account data quality and distribution, spatial continuity, confidence in the geological interpretation and estimation confidence. Because of the high confidence in the simple geological model, grade continuity, drill hole spacing and data integrity, both the MG14 and Windabout resources have been classified as Indicated Resource. The deposit was not classified as a Measured Resource due to the heavy reliance on historic data without QAQC reports, and the apparent negative bias between historic and recent drilling data sets.

The resources are reported at a 0.5 and 1.0% Cu equivalent cut offs to provide a range of resource figures for financial analysis and mineral reserve estimation. A Cu equivalent has been used to reflect, in Coda Minerals' and Torrens Mining's belief is the value of recoverable and salable Cu and Co in the resource. Ag also has the potential to add significant value to the project, however Ag analyses in the estimation and metallurgical test work are as yet insufficient to include in a metal equivalent calculation.

The estimation was validated by visually checking the interpolation results against drill hole data in plan and section, comparing input and output statistics and comparing with previous estimates. The estimate is considered to be robust on the basis of the above checks.

Both deposits contain zones of higher copper and cobalt grades and the deposits may be amenable to mining at higher cutoff grades.

For original release of this information to the ASX, please see the report "Mt Gunson Copper-Cobalt Project Update", released to the ASX by Gindalbie metals on 19 January 2018 at <a href="https://www.asx.com.au/asxpdf/20180119/pdf/43qxphjd18l2x0.pdf">https://www.asx.com.au/asxpdf/20180119/pdf/43qxphjd18l2x0.pdf</a>.



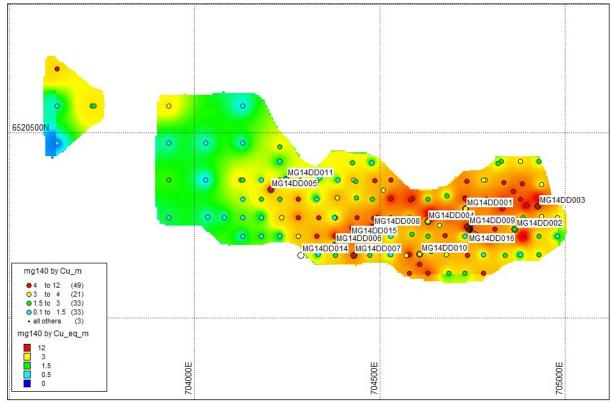


Figure 1 MG14 Deposit drill hole location plan and Cu equivalent x thickness m image.

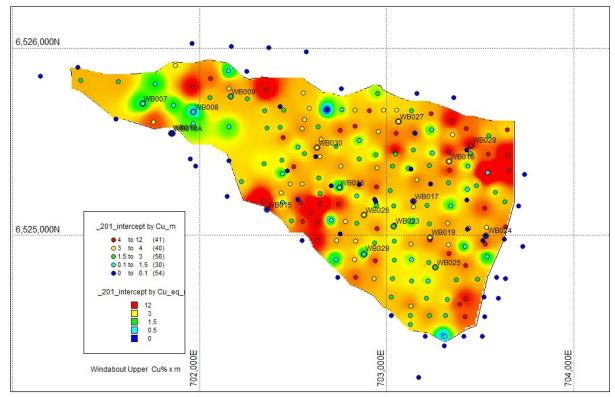
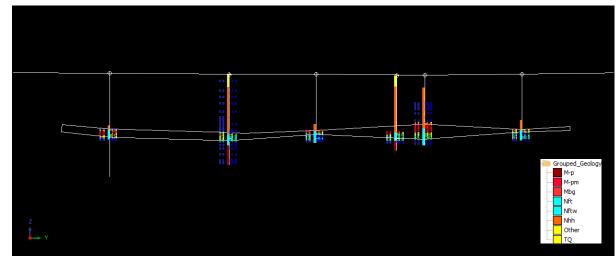


Figure 2 Windabout Upper Mineralised Zone drill hole location plan and Cu equivalent x thickness m image.







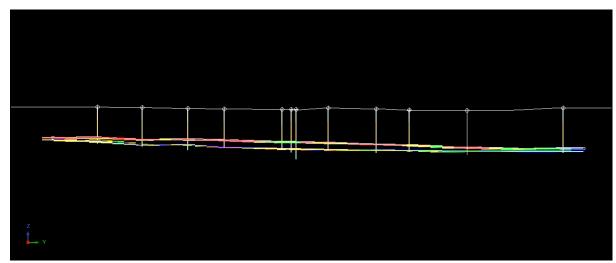


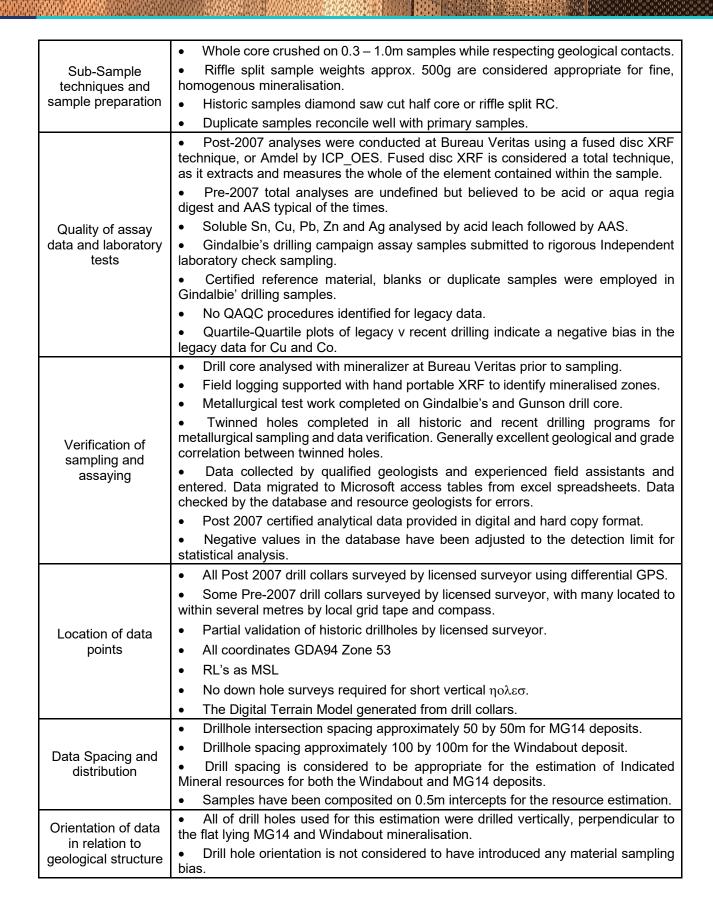
Figure 4 Windabout Section 702940E, Lower and Upper mineralised zones on the top and bottom of the Tapley Hill Formation.



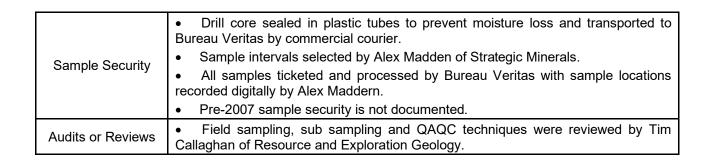


# JORC Table 1 Section 1. Sampling Techniques and Data

Criteria	Commentary			
	• The Windabout and MG14 deposits has been delineated entirely by drilling, both diamond and RC. Numerous drilling campaigns were completed between 1970 and 1995 by CSR, ACC, Pacminex and Stuart Metals. Post - 2007 drilling was completed by Gunson and Gindalbie.			
	Windabout pre-2007 drilling 198 drill holes drill holes 16,933m			
O	<ul> <li>Windabout post 2007 drilling 23 holes for 1,384m.</li> </ul>			
Sampling Techniques	<ul> <li>MG14 pre-2007 drilling 185 drill holes drill holes 6,865m</li> </ul>			
rechniques				
	MG14 post 2007 drilling 25 holes for 904m.			
	• Tapley Hill Formation and lower Whyalla sandstone were selected for geochemical analysis			
	• Approximately 0.5m samples of 1-2kg were taken from diamond saw cut drill core or riffle split RC samples whilst respecting geological boundaries			
	Windabout			
	Company Type holes m Date CSR RC 10 911.0 1985			
	Stuart RC 168 14,471.6 1994-96			
	Stuart HQ 8 718.8 1995			
	Stuart NQ 12 832.1 1996			
	Gunson HQ 5 395.5 2010			
	Gindalbie HQ 18 1,383.8 2017			
	Total 221 18,712.7			
	MG14			
	Company Type holes m Date			
Drilling Techniques	Stuart RC 14 525.5 1995			
Drining i borninquoo	Pacminex NQ 34 1,239.2 1975			
	Pacminex PQ 15 451.5 1975			
	Pacminex HQ 11 381.3 1973			
	Pacminex RC 2 59.0 1973			
	Pacminex Other 2 290.2			
	Pacminex undef 10 600.6			
	ACC NQ 38 1,424.5 1989			
	ACC HQ 59 1,893.4 1990			
	Gindalbie HQ 15 578.2 2017			
	Gunson HQ 10 325.4 2008-10			
	Total 210 7,768.8			
	• Core reconstituted, marked up and measured recovery for Gindalbie drilling.			
Sample recovery	Recoveries generally excellent (95-100%)			
Sample recovery	No relationship between recovery and grade was observed			
	Historic holes recoveries not available.			
	• Geological logging has been carried out on all holes by experienced geologists and technical staff.			
	<ul> <li>Holes logged for lithology, weathering, and mineralisation.</li> </ul>			
Logging	<ul> <li>All holes photographed wet and dry before cutting.</li> </ul>			
	<ul> <li>Logs loaded into excel spreadsheets and uploaded into access database.</li> </ul>			
	<ul> <li>Pre-20107 paper logs entered into access database by experienced geologists.</li> </ul>			
	<ul> <li>Standard lithology codes used for all drillholes.</li> </ul>			
	Standard Infology codes used for an drinnoles.			







## JORC Table 1 Section 2. Reporting of Exploration Results

Criteria	Commentary		
Mineral tenement and land tenure	• The MG14 and Windabout deposits, located on EL 5636 (51% Coda/49% Torrens) form part of the Elizabeth Creek Project, which also includes EL's 6265 and 6141for a total area of 739km <sup>2</sup> .		
	• The Adelaide Chemical Company acquisition mid 1980's with Oxide copper leaching operations producing approximately 1 tonne of cement copper per day.from excised ML's not owned by Coda/Torrens.		
status	<ul> <li>Torrens have entered into Farm-in agreement with Coda which includes funding of diamond drilling and metallurgical testwork on the MG14 and Windabout deposits by Coda.</li> </ul>		
	• Tenements are subject to native title agreements yet to be negotiated if mining proceeds.		
	• Outcrops of Cu-oxides discovered in 1873 and mined intermittently to 1937.		
	• 1941 and 1943, 32,380t of ore grading 3.5% Cu was mined for Broken Hill Associated smelters		
	• Modern exploration commenced in the 1960's through Ausminex, later acquired by CSR.		
	• CSR commenced mining in 1970 on the Main Open Pit at 400,000tpa.		
Exploration done by	Cattle Grid sulphide deposit in 1972.		
other parties	• Between 1974 and 1984, 127,000t of copper and 62t of silver was produced from 7.2Mt of ore mined in the Cattle Grid open pit.		
	• The Windabout, MG14 and Cattle Grid South deposits were discovered during this phase of mining.		
	• Stuart Metals NL intensive infill drilling 1994-95, with feasibility study completed in 1996.		
	Gunson Resources 2000-2016 feasibility studies and metallurgical testwork.		
	Torrens acquisition in 2016 and Gindalbie Farm-in agreement 2017.		
Geology	• The Windabout and MG14 deposits are sediment- hosted Copper-Cobalt-Silver sulphide deposits formed through the replacement of diagenetic pyrite within dolomitic shales of the Tapley Hill Formation.		
Drill Hole Information	• Drill collar details and significant intersections for all drill holes are detailed in Appendix 2 of the original announcement available at https://www.asx.com.au/asxpdf/20180119/pdf/43qxphjd18l2x0.pdf.		
Data aggregation	• Exploration results and resource estimation figures have been reported on a 0.5% Cu and 1.0% Cu cutoff.		
methods	• A lower cut-off grade of 0.5% Cu equivalent has been applied for mineralised domain modelling.		



	<ul> <li>A Cu equivalent has been determined from Mine gate break even Cu and Co prices. Cu US\$6,600, Co US\$55,000, Exchange rate 0.73 US\$/Au\$, Cu recovery 60%, Co recovery 85%, Mining recovery 90%, dilution 5%, payable Cu 70%, Payable Co 75%, Operating cost Au \$26.</li> <li>Cu_eq = Co_ppm*0.0012</li> </ul>				
Relationship between mineralisation widths and intercept lengths	<ul><li>All drillhole lengths are true widths.</li><li>All drillholes modelled 3 dimensionally for resource estimation.</li></ul>				
Diagrams	See body of the report for relevant plan views and sectional views.				
Balanced reporting	Not applicable				
	• The depth and morphology of the mineralisation is amenable to low cost rip, load and haul open cut mining.				
	• Geotechnical and Mining study completed by Barratt and Fuller Partners in 1995.				
Other substantive exploration data	• Metallurgical test work completed by Ian Wark Research Institute in 2009 indicates a recovery of 66.7% from sulphide flotation.				
	• Test work commissioned by Torrens suggest that a process of conventional sulphide flotation followed by a glycine/cyanide leach would be capable of producing overall recoveries of about 90%.				
Europh an angele	• Resource infill drilling is planned to coincide with further technical studies as part of a Definitive Feasibility Study.				
Further work	Windabout and MG14 deposits essentially closed off.				
	• Good potential for brownfields and regional discoveries with further exploration.				

## JORC Table 1, Section 3, Estimation and Reporting of Mineral Resources.

Criteria	Status
	Data provided as excel spreadsheets
	Access database created for resource estimation.
	• Historic data validated by checking paper logs and assay sheets by contract geologists.
Database Integrity	Post 2007 data received electronically and loaded into database
	• Data integrity validated with Surpac Software for EOH depth and sample overlaps and transcription errors.
	• 0.5m composite statistical analysis checked for significant variations or anomalous figures. No material errors identified.
Site Visits	• A site visit made during the September 2017 drilling program, during which the Author participated in drill logging and sample packaging.
	• Periodic advice on infill drilling and QAQC procedures have been provided.
	High confidence in simple sediment hosted strataform mineralisation.
Geological Interpretation	• No alternative geological interpretations were attempted for this estimation. Geology model does not vary significantly from historic geology interpretations.
morprotation	Geology/grade contour used for mineralised domain modeling.
Dimensions	• The Windabout deposit forms a flat tabular, triangular shaped sheet extending approximately 2km east-west and 1km north-south, varying in thickness between 2 and 8m. The deposit is located under a cover sequence of semi consolidated Whyalla Sandstone at a depth between 55 and 85m.

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	• The MG14 deposit also forms a tabular, triangular shaped sheet hosted in the flat lying Tapley Hill Formation, extending 1.4km east west by 0.4 km north. The deposit is 3-8m in thickness and is located approximately 20-25m below surface beneath the Whyalla Sandstone.
Estimation and Modelling techniques	<ul> <li>Block modeled estimation completed with Surpac<sup>™</sup> software licensed to Tim Callaghan.</li> <li>Wire-framed solid models created from drillholes on 50m or 100m sectional interpretation.</li> <li>Solid models snapped to drill holes</li> </ul>
	<ul> <li>Minimum width of 1m downhole @ 0.5% Cu_eq</li> <li>Internal dilution restricted to 1m with allowances for geological continuity.</li> </ul>
	<ul> <li>Data composited on 0.5m intervals including Cu, Co, Ag, S, Pb, Zn, total C.</li> <li>Top cutting based on CV and grade histograms. Only Windabout UMZ Co top cut to 2555ppm.</li> <li>Metal association indicates very good correlation between Cu, Co, and Ag.</li> <li>MG14 block model extends between 6,520,000 to 6,520,800N, 703,450 to 705,200E and 0 to 100m RL. Block sizes 25m x 25m x 0.5m with sub-celling to 6.25m in the x and y directions and 0.5 in the z direction.</li> <li>The Windabout block model extends between 6,524,200 to 6,526,100N, 701,000 to 704,050E and -20 to 100m RL. Block sizes 25m x 25m x 0.5m with sub-celling to 6.25m in the x and y directions and 0.5 in the Z direction.</li> <li>Variogram models are well constructed with low to zero nugget effect and long range of 40 to 60m to sill for major geological domains.</li> <li>Search ellipse set at 200m spherical range to ensure &gt;95% of blocks populated.</li> <li>Ordinary kriged estimation for Cu, Co and Ag constrained by geology solid model.</li> </ul>
	Ag estimated by regression analysis of Cu-Ag for Windabout deposit.
	Excellent grade correlation with previous estimations.
Moisture Cut-off Parameters	<ul> <li>The estimate based on a dry tonnage basis</li> <li>Cut off grades have been determined from mining recoveries (90%), metallurgical recoveries (60-85%), estimated industry costs (\$26/t), prevailing mineral price (Cu US\$6,600, Co US\$55,000) and exchange rate estimations (\$US/\$A0.73).</li> </ul>
	• A block cutoff of 0.5% Cu has been applied for the reporting of the mineral resources
Mining Assumptions	<ul> <li>Mining studies completed by Barratt and Fuller Partners, for 1995 BFS.</li> <li>Conventional free digging Open Pit operation.</li> <li>Torrens commissioned an independent study into bulk mining methods in 2015 which suggested electrically-powered open cast coal mining methods may be amenable for overburden removal. Torrens plans to mine the flat-lying shale-hosted mineralised horizons at both MG14 and Windabout, with a diesel-powered Continuous Miner, a method which would involve little or no blasting and enable minimal ore dilution to be achieved.</li> </ul>
Metallurgical assumptions	• Metallurgical testwork completed by Ian Wark Research Institute in 2009 indicates a recovery of 66.7% for copper could be achieved from sulphide flotation.



	• Initial results from the test work commissioned by Torrens suggest that a process of conventional sulphide flotation followed by a glycine/cyanide leach would be capable of producing overall recoveries of about 90%, for copper, with high cobalt recoveries from flotation.
Environmental assumptions	<ul> <li>A previously disturbed historical mining environment around the proposed mine and processing site that may be amenable for future processing facilities.</li> <li>Majority of waste rock likely to remain in open pit storage facility.</li> <li>Initial studies of acid generating characteristics of mine sequence rock-types required.</li> </ul>
Bulk Density	<ul> <li>Bulk density derived from diamond drill core using the Archimedes method at Bureau Veritas.</li> <li>Core is un-oxidised and free of cavities</li> <li>Wet SG determinations were completed on the samples by weighing the wet selected samples in air then weighing them in water with the wet bulk density determined by the Archimedes method. The samples were then dried in air. The dry bulk density was determined as:</li> </ul>
Classification	<ul> <li>dry weight / (wet weight - wet weight in H2O)</li> <li>Confidence in the geological model, data quality and interpolation is sufficient for classification of s Indicated Resources.</li> <li>The reliance on historical data without adequate QAQC prevents higher classification as there is some uncertainty in the data.</li> <li>The resource classification appropriately reflects the views of the Competent Person.</li> </ul>
Audits or Reviews	No audits or reviews have been completed for this estimation
Discussion of relative accuracy/confidence	<ul> <li>The simple geological model is robust between sections.</li> <li>Drill spacing, variography and data variability provide confidence in the estimate which is reflected in the resource classification.</li> <li>Resource grades supported by ID2 estimation.</li> <li>No production data is available for reconciliation.</li> </ul>

## Competent Person and JORC Code

This resource was prepared in accordance with the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' ("JORC Code") by Tim Callaghan, who is a Member of the Australian Institute of Mining and Metallurgy ("AusIMM"), has a minimum of five years' experience in the estimation and assessment and evaluation of Mineral Resources of this style and is the competent Person as defined in the JORC Code. This report accurately summarises and fairly reports his estimations and he has consented to the resource report in the form and context it appears.

## Ore Reserve Summary

At this time, Coda has no interest in any Mineral Reserves.

