


2 August 2017

ASX: AOH, FSE: A2O

UPDATED DFS DELIVERS BIGGER AND BETTER CLONCURRY COPPER GOLD PROJECT

- **A standout amongst very few copper development opportunities**
- **Large scale, permitted, open pit mine located in a high skill and low risk jurisdiction**
- **Ore Reserve of 426,000 tonnes of copper and 203,900 ounces of gold**
- **Significant initial annual production of 39,000 tonnes of copper and 17,200 ounces of gold in concentrate**
- **A\$1.48 billion of cashflow (pre-tax and sustaining capital) over an initial mine life of 14 years**
- **Development of large Little Eva open pit and 5 smaller satellite pits**
- **Construction of a 7 million tonnes per annum conventional flotation plant at a capital cost of A\$288 million**
- **150,000 tonnes per annum of clean, marketable copper-gold concentrate**
- **Average annual operating cashflow (pre-tax and sustaining capital) of A\$141 million per annum for first 5 years at full production**
- **Net present value (pre-tax NPV 7.5%) of A\$462 million at US\$2.95 per pound copper, US\$1,250 per ounce gold, AUD:USD 0.75**
- **Life of Mine average cash cost of US\$1.65 per pound of copper in concentrate and an all-in-cash cost of US\$1.92 per pound copper in concentrate**
- **Opportunities identified to improve returns during project optimisation**
- **Opportunity exists to expand production through inclusion of copper only deposits**



Altona Mining Limited (“Altona” or “the Company”) today announces an update of the Definitive Feasibility Study (“DFS”) of the Cloncurry Copper Project (“Project”), 90 kilometres north-east of Mt Isa in Queensland, Australia.

Altona Managing Director, Dr Alistair Cowden said, “We are delighted with the study update which results in annual operating surplus before tax and sustaining capital of approximately A\$141 million. This highlights the value that will be released once the project is developed.”

The study has been completed to provide an up to date status of the Project which consolidates and integrates all technical work of prior studies with a number of significant developments since the initial DFS in May 2012 and the update to the DFS in March 2014 that impact on costs, revenues and design. They include:


- New Resource estimates and geological/geotechnical models for the Little Eva and Bedford deposits. Please note these new estimates have not yet been used to generate new Ore Reserve estimates.
- Mineral Resource and Ore Reserve estimates for the Turkey Creek deposit
- Metallurgical testwork of Turkey Creek ore
- Inclusion of the Turkey Creek deposit in mine plan
- Re-design and re-location of infrastructure and waste dumps to accommodate Turkey Creek pit
- A reduction in engineering and construction costs
- Updated cost estimates
- Updated Environmental Authority to reflect inclusion of Turkey Creek
- Changes to macro-economic assumptions.


The study also identified a number of areas for improvement to be addressed in project optimisation:

- Reserve expansion through converting Inferred Resources below Little Eva pit to Indicated Resources
- RC drilling for better definition of grade control, dilution and ore loss
- Updated Little Eva Resource model
- Geotechnical model constructed indicating opportunity for improvement in mine design
- Little Eva pit optimisation and design using lower current mining costs and upgraded Resource model
- Resource upside at satellite pits
- Consideration of higher plant throughput if Reserve increase warrants expansion
- Increased water resources to support higher throughput.

The study also recommends examining the opportunity of expanding production by inclusion of copper-only deposits not considered in the DFS.

Compared to the 2014 DFS, this study has delivered material improvements:

- Reserves up 14% from 375kt copper to 426kt copper
 - Mine life up 27% from 11 years to 14 years
 - Life of mine revenue up 24% from A\$2.9 billion to A\$3.6 billion
 - NPV (pre-tax) up 34% from A\$346 to A\$462 million
 - IRR (pre-tax) up 24% from 29% to 36%.
- 



The Project comprises a large scale open pit mine at Little Eva and five satellite pits; Turkey Creek, Bedford North and South, Lady Clayre and Ivy Ann. Ore will be processed at a 7 million tonnes per annum processing plant adjacent to Little Eva and Turkey Creek. The Little Eva pit has a low strip ratio of 1.8:1 (excluding pre-strip). The Project has an initial 14 year life.

The Little Eva processing plant will have a technically simple crushing, grinding and flotation circuit resulting in the pre-production capital cost including pre-strip, processing plant and associated infrastructure being A\$288 million. The operation will produce 150,000 tonnes per annum of readily marketable, clean copper-gold concentrate containing an average of 39,000 tonnes per annum copper and 17,200 ounces per annum gold for the first 5 years of full production. High metal recoveries of 96% copper and 85% gold are achievable at a coarse grind size of 212 microns. The mill feed grade averages 0.6% copper and 0.1g/t gold excluding marginal grade stockpiles.

Permitting for the Project is largely completed, an Environmental Authority has been received and Mining Leases have been granted.

The Executive Summary of the DFS is appended to this release. A new Table 1 of the JORC 2012 Code has been released separately (ASX release 2 August 2017, Cloncurry Copper Project: JORC 2012 Disclosure). This release consolidates multiple prior disclosures and updates some prior disclosure from JORC 2004 to JORC 2012 compliance.

Please direct enquiries to:

Alistair Cowden
Managing Director
Altona Mining Limited
Tel: +61 8 9485 2929
altona@altonamining.com

David Ikin
Professional Public Relations
Perth
Tel: +61 8 9388 0944
David.Ikin@ppr.com.au

Jochen Staiger
Swiss Resource Capital AG
Tel: +41 71 354 8501
js@resource-capital.ch



About Altona and the Cloncurry Copper Project

Altona Mining Limited ("Altona") is an ASX listed company focussed on the Cloncurry Copper Project ("Project") in Queensland, Australia. The Project has Mineral Resources containing some 1.67 million tonnes of copper and 0.43 million ounces of gold. It is envisaged that a 7 million tonnes per annum open pit copper-gold mine and concentrator will be developed at the Project. The development is permitted with proposed annual production⁽¹⁾ of 39,000 tonnes of copper and 17,200 ounces of gold for a minimum of 14 years. The Definitive Feasibility Study was refreshed in July 2017.

¹Refer to the information attached to this ASX release 'Updated DFS Delivers Bigger and Better Cloncurry Copper Gold Project' dated 2 August 2017 which outlines information in relation to this production target and forecast financial information derived from this production target. The release is available to be viewed at www.altonamining.com or www.asx.com.au. The Company confirms that all the material assumptions underpinning the production target and the forecast financial information derived from the production target referred to in the above-mentioned release continue to apply and have not materially changed.

Competent Person Statement and JORC Compliance

Responsibility for Exploration Targets, Exploration Results, Mineral Resources: The information in this report that relates to Exploration Targets, Exploration Results or Mineral Resources is based on information generated or compiled by Dr Alistair Cowden, BSc (Hons), PhD, MAusIMM, MAIG, Mr Roland Bartsch, BSc(Hons), MSc, MAusIMM, Mr George Ross, BSc, MSc, MAIG and Mr Frank Browning BSc (Hons) MSc, MAIG. Dr Cowden, Mr Bartsch, Mr Ross and Mr Browning are full time employees of the Company and have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr Cowden, Mr Bartsch, Mr Ross and Mr Browning consent to the inclusion in the report of the matters based on their information in the form and context in which it appears.

Responsibility for Ore Reserves: The information in this report that relates to Ore Reserves is based on information generated or compiled by Dr Alistair Cowden, BSc (Hons), PhD, MAusIMM, MAIG and Mr Roland Bartsch, BSc(Hons), MSc, MAusIMM. Dr Cowden and Mr Bartsch are full time employees of the Company and have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr Cowden and Mr Bartsch consent to the inclusion in the report of the matters based on their information in the form and context in which it appears.

Copper equivalence: When used, copper equivalence (Cueq) refers to copper and gold in concentrate, not resources or reserves, or drill results. Revenue from gold is simply equated to copper revenue using the assumptions reported in the ASX release dated 2 August 2017.