

13 March 2014

ASX: AOH, FSE: A20

COST REVIEW DELIVERS MAJOR UPGRADE TO LITTLE EVA

- **NPV increased 37% to A\$346 million, IRR up to 29% with a 3 year payback**
- **Reduced capital cost by 8% to A\$294 million (US\$262 million)**
- **EBITDA averages A\$117 million per annum for first 5 years with a C1 cash cost of US\$1.65/lb copper and an all-in cash cost of US\$1.96/lb copper**
- **Definitive Feasibility Study costs updated by GR Engineering Services**
- **Mining, construction, engineering and equipment costs all reduced due to a lower price environment compared to May 2012 study**

Copper miner, Altona Mining Limited ("Altona" or "the Company") today announces the results of a cost review of the Definitive Feasibility Study ("DFS") completed in May 2012 upon its 100% owned Little Eva Copper Project ("The Project"), 90 kilometres north-east of Mt Isa in Queensland, Australia.

There have been a number of significant developments that impact on costs and revenues since the completion of the DFS in May 2012. They include:

- A marked reduction in contract mining costs
- A reduction in engineering and construction costs
- Changes to the macro-economic environment with consensus indicating a lower Australian dollar, lower near-term copper prices, lower gold prices and higher long term copper prices

GR Engineering Services Limited ("GRES") completed a review and refreshment of all costs based upon market enquiry with the financial outcomes for the Project improving significantly:

- Net Present Value ("NPV") - Up by 37% from A\$252 million to A\$346 million
- Internal Rate of Return ("IRR") - Up from 22% to 29%
- Capital cost - Down 8% from A\$320 million to A\$294 million
- Capital intensity of US\$6,700 per annual copper tonne *

Altona Managing Director, Dr Alistair Cowden said, "We are delighted with the result of the GRES cost review; a 37% uplift in NPV from A\$252 million to A\$346 million will benefit the process of finding a partnering and financing solution to enable Altona to deliver value on this great asset. There are few large scale, financially robust copper projects that are both permitted and located in high skill, low risk environments. Little Eva is such a project and one with a very competitive capital cost for the scale of production. The marked improvement in costs highlights that the Australian mining sector is regaining its international competitiveness."

* At USD:AUD 0.89

A full summary of the Project is contained in the Executive Summary of the updated DFS. This summary is appended and forms part of this ASX announcement.

Little Eva at a Glance

The Project comprises a large scale open pit mine at Little Eva and three satellite deposits; Bedford, Lady Clayre and Ivy Ann. Ore will be processed at an adjacent 7 million tonnes per annum processing plant. The Little Eva pit has a low strip ratio of 1.8:1 (excluding pre-strip). The Project has an 11 year life with extensions expected from reserve and resource upgrades, resource extensions, the Turkey Creek discovery and numerous advanced exploration targets.

The processing plant has a technically simple crushing, grinding and flotation circuit resulting in the estimated capital cost for the processing plant and associated infrastructure being only A\$168 million. The full pre-production capital cost including pre-strip is estimated to be A\$294 million. The operation will produce 150,000 tonnes per annum of readily marketable, clean copper-gold concentrate containing an average of 38,800 tonnes per annum copper and 17,200 ounces per annum gold for the first 5 years*. High metal recoveries of 96% copper and 85% gold are achievable at a coarse grind size of 210 microns. The mill feed grade averages 0.6% copper and 0.1g/t gold.

Next Steps

Permitting for the Project is largely completed, environmental approvals have been received and mining leases have been granted. Modification to the Environmental Management Plan, submission of a Plan of Operations and other pre-development activities have been put on hold pending funding for the Project being secured.

A range of options are being considered to realise value from Little Eva, including financing the construction of Little Eva, partnership with miners, copper consumers, financial groups or an outright sale. Financing activities commenced last year but were slowed by poor market conditions in the middle of 2013. A number of parties from China and elsewhere are evaluating participation in the Project.

There are numerous near-term opportunities to further improve outcomes at Little Eva:

- Increases to Resource and Reserve at Lady Clayre and Ivy Ann from drilling completed after the May 2012 DFS
- Additional Resources and Reserves from the 2012 Turkey Creek discovery
- Incorporation of the potential pit at Turkey Creek into tailings disposal options
- Lower mining costs incorporated into new pit optimisations will improve reserves
- Infrastructure and service sharing opportunities with the adjacent Dugald River development

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* See Executive Summary which forms part of this release for support for this production target.

About Altona

Altona Mining Limited is a copper producer in Finland and has a major copper development project in Australia.

The Company's Outokumpu Project in south-east Finland commenced production in early 2012. The project comprises the 600,000 tonnes per annum Kylylahti underground decline mine and the Luikonlahti mill. Annual production currently averages 9,000 tonnes of copper, 9,000 ounces of gold and 1,600 tonnes of zinc with potential to expand production under consideration. Regional resources are hosted in 2 closed mines and 4 unmined resources, all within 30 kilometres of the Luikonlahti mill. Finland is a Eurozone country and has a long history of mining, an attractive corporate tax regime (20%) and no royalties.

Altona's other core asset is the Cloncurry Copper Project near Mt Isa in Queensland and is one of Australia's largest undeveloped copper projects. The first development envisaged is the 7 million tonnes per annum Little Eva open pit copper-gold mine and concentrator. Little Eva is fully permitted with proposed annual production of 38,800 tonnes of copper and 17,200 ounces of gold for a minimum of 11 years. A DFS was completed in May 2012, and a review of costs was provided in March 2014. Altona is engaged in discussions with potential partners to enable the funding of this major development.

Altona Mining is listed on the Australian Securities Exchange and the Frankfurt Stock Exchange.

Competent Person Statement and JORC Compliance

Responsibility for entire release: Information in this ASX release that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves, is based on information compiled by Dr Alistair Cowden, BSc (Hons), PhD, MAusIMM, MAIG and Dr Iain Scott PhD Min. Processing, BSc Met. (Hons) who are both full time employees of the Company and who have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (The JORC Code). Dr Alistair Cowden and Dr Iain Scott consent to the inclusion in the release of the matters based on their information in the form and context in which it appears.

Copper equivalence: When used, copper equivalence refers to copper in concentrate, not resources or reserves, or drill results. Revenues from gold is simply equated to copper revenue.

Reserve estimates: The information in this ASX release relating to estimates of Ore Reserves has been extracted from the ASX release *Little Eva: A new large scale copper development*, 14 May 2012, which summarised the Little Eva 2012 Definitive Feasibility Study.

The ASX release is available for review on the Altona website at www.altonamining.com. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the market announcement continues to apply and has not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not materially modified from the original market announcement.

There are no changes to the reserve estimates for the Little Eva Project. The reserve estimates herein were prepared and first disclosed under the JORC Code 2004. These estimates have not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.

Resource estimates: The information in this ASX release relating to estimates of Mineral Resources has been extracted from the following reports:

ASX Release Date	Title of ASX Release	Outline of Relevance
26 July 2011	Roseby Resource passes one million tonnes of contained copper	Initial resource estimate for Little Eva deposit with 2004 JORC Table 1.
19 December 2011	Little Eva turns one hundred	Resource estimate update for Little Eva deposit with reference 26 July 2011 ASX release.
23 April 2012	Further resource upgrades at Roseby Project	Resource estimates for Bedford, Ivy Ann and Lady Clayre deposits with relevant 2004 JORC Table 1.
14 May 2012	Little Eva: A new large scale copper development	Little Eva Definitive Feasibility Study. Included an updated resource estimate for Little Eva due to the removal of surface oxide mineralisation from the resource estimate reported on 19 December 2011.
3 July 2012	15% Resource Upgrade at Roseby Project	Resource estimates for the Blackard and Scanlan deposits with relevant 2004 JORC Table 1.
22 August 2012	Further Resource Upgrade at Roseby Project	Resource estimate for the Legend deposit with 2004 JORC Table 1.

These ASX releases are available for review on the Altona website at www.altonamining.com. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not materially modified from the original market announcement.

There are no changes to the resource estimates for the Little Eva Project. The resource estimates herein were prepared and first disclosed under the JORC Code 2004. These estimates have not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.

**LITTLE EVA
DEFINITIVE FEASIBILITY STUDY
MARCH 2014 UPDATE**

EXECUTIVE SUMMARY



Copper stained rocks (malachite) from old workings at Little Eva old workings

LITTLE EVA PROJECT: KEY FACTS

Mineral Resources and Ore Reserves*	Tonnes (million)	Copper (%)	Gold (g/t)
Measured, Indicated and Inferred Resources	123	0.55	0.10
Proven and Probable Reserves (ROM)	59	0.59	0.09
Proven and Probable Reserves (low-grade stockpile)	15	0.18	0.06
Contained metal in Reserves		375,000(t)	205,000(oz)

Production Summary (years 1-5)**

Project life (excluding potential mining inventory)	11 years
Little Eva strip ratio (after pre-strip)	1.8:1
Little Eva strip ratio including pre-strip	2.0:1
Annual processing rate (tonnes per annum)	7,000,000
Copper recovery	96%
Gold recovery	85%
Copper in copper concentrate (tonnes per annum)	38,800
Gold in copper concentrate (ounces per annum)	17,200

Capital Costs

A\$ (million)

Mining mobilisation and pre-strip	52
Processing plant and infrastructure	168
Tailings storage facility	18
Accommodation village	18
First fill, spares etc	12
Owners costs	8
Contingency	18
Total	294

Operating Costs

A\$ (per tonne milled)

Mining	9.33
Processing	7.39
General and administration	2.13
Concentrate transport and sales	2.73
Total costs per tonne	21.58
C1 cash cost per pound copper after credits	US\$1.65/lb
Life of mine sustaining capital	US\$0.12/lb
Royalties	US\$0.19/lb
Total costs	US\$1.96/lb

Project Economics

A\$ (million)

Life of mine Revenues after smelter charges	2,931
Pre-tax cashflow (after construction capital)	969
Average EBITDA (year 1-5)	117
Pre-tax NPV (unleveraged at 7.5% real discount rate)	346
Pre-tax IRR	29%

* Resources are inclusive of Reserves.

** Production summary (target) is based entirely on ore reserves.

LITTLE EVA PROJECT: KEY FINANCIALS

Production**	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27
Ore milled*	-	0.4	6.6	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	5.5	6.7
Copper grade (%)	-	0.69	0.64	0.60	0.55	0.58	0.58	0.56	0.52	0.52	0.52	0.24	0.18
Gold grade (g/t)	-	0.11	0.10	0.10	0.09	0.08	0.09	0.08	0.08	0.09	0.11	0.09	0.06

* Million tonnes.

Life of Mine Production

Milled tonnes	Million tonnes	76.7
Recovered copper	Tonnes	365,910
Recovered gold	Ounces	137,080

Cashflow Analysis	Totals	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27
Revenue	2,931	-	12	308	318	294	309	306	295	277	282	284	143	103
Capital costs	(294)	(44)	(250)	-	-	-	-	-	-	-	-	-	-	-
Operating costs	(1,654)	-	(7)	(124)	(175)	(186)	(184)	(175)	(165)	(157)	(159)	(157)	(94)	(71)
Sustaining capital	(117)	-	(6)	(54)	(8)	(4)	(3)	(5)	(7)	(12)	(14)	(4)	-	-
Royalties	(191)	-	(1)	(20)	(21)	(19)	(20)	(20)	(19)	(18)	(18)	(19)	(9)	(7)
Total	675	(44)	(252)	110	114	85	102	106	104	90	91	104	40	25

All values in A\$ millions.

Life of Mine Cash Cost Analysis	C1 Cash Cost	All-in Cash Cost	
Costs			
Mining costs	US\$/lb	0.72	0.72
Site processing costs	US\$/lb	0.57	0.57
Treatment and refining charges (TC/RC)	US\$/lb	0.21	0.21
Concentrate transport	US\$/lb	0.21	0.21
Other cash costs	US\$/lb	0.16	0.16
By-product credit	US\$/lb	(0.22)	(0.22)
C1 Cash Cost per pound	US\$/lb	1.65	1.65
Royalty	US\$/lb	-	0.19
Sustaining capital expenditure	US\$/lb	-	0.12
All-in Cash Cost per pound	US\$/lb	-	1.96

Key Assumptions	2015 to 2017	2018 +
AUD:USD	0.85	0.80
Copper (US\$/lb)	3.20	3.00
Gold (US\$/ounce)	1,250	1,300
TC/RC (US\$/tonne/US\$/lb)	75 / 0.075	75 / 0.075

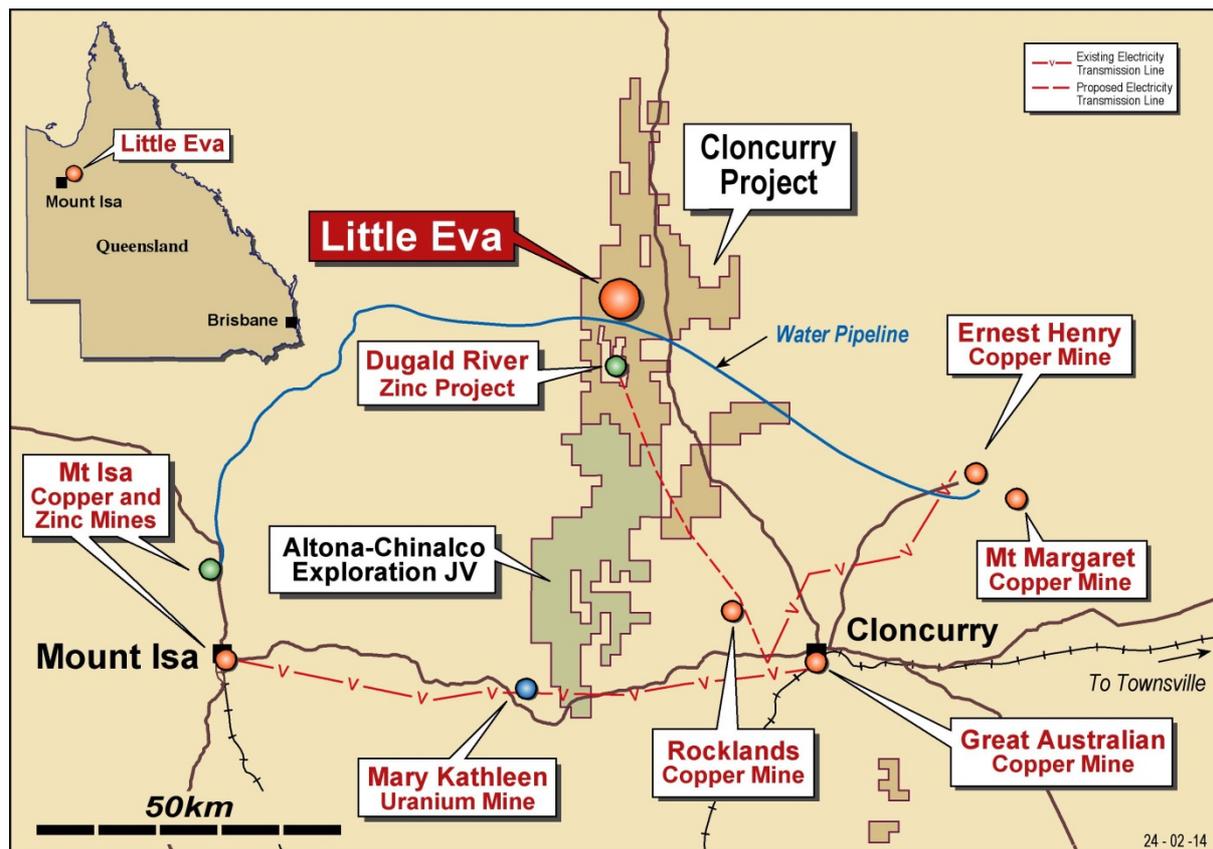
** Production (target) is based entirely on ore reserves. Please note that potential production of 1.5Mt in FY2027 which is based on Resources (1.5Mt) is excluded.

Introduction

The 100% owned Little Eva Project is a large, low-risk proposed copper-gold open pit mine and processing plant similar to other current and former mines in the Mt Isa-Cloncurry area in Queensland. The Project comprises the large Little Eva open pit and three smaller satellite pits which will deliver copper-gold sulphide ore to a 7 million tonnes per annum processing plant. Little Eva is a typical Iron Oxide Copper Gold (“IOCG”) deposit similar to Ernest Henry, Osborne, Selwyn and others.

The Little Eva deposit was the subject of a major drill programme in 2010 to 2012 and consequently contained resources more than doubled. The enlarged Little Eva deposit was the focus of a DFS of a simple operation treating copper-gold sulphide ore that was completed in May 2012. The November 2011 costings from that study were updated by GR Engineering Services Limited (“GRES”) and are reported in this document.

The Little Eva deposit has been included in feasibility studies in the past (2005) where it was envisaged to be mined in conjunction with two ‘copper-only’ deposits; Blackard and Scanlan. The earlier studies indicated that the processing characteristics and metal recoveries of Little Eva ore were far superior to the ‘copper-only’ deposits which, as a result, were excluded from this Definitive Feasibility Study (DFS).



Location of Little Eva and regional infrastructure.

The Little Eva Project is the first stage of development of Altona’s larger Resource inventory which contains a total of 1.5 million tonnes of copper on its Cloncurry Project. The copper-only deposits within Altona’s mining leases will be re-visited in a separate study that will be undertaken once Little Eva is established.

Definitive Feasibility Study

The initial study was completed in May 2012 and was managed by GRES. The principal consultants and inputs are attributed as follows;

Mineral Resources:	Altona Mining
Geotechnical:	George Orr and Associates
Tailings storage facility:	Knight Piésold
Mine costing	IQe
Mine design and Ore Reserves:	Optiro
Hydrology:	KH Morgan & Associates / Rockwater
Process design:	GRES / Ozmet
Metallurgical testwork:	GRES / ALS Ammtec Laboratories
Plant and infrastructure:	GRES
Logistics:	Gilbride Management
Environment:	MBS Environmental

For the March 2014 update; construction, plant and processing costs were reviewed and updated by GRES and mining costs were updated by IQe. Macroeconomic assumptions were updated by Altona.

The Project comprises the following components:

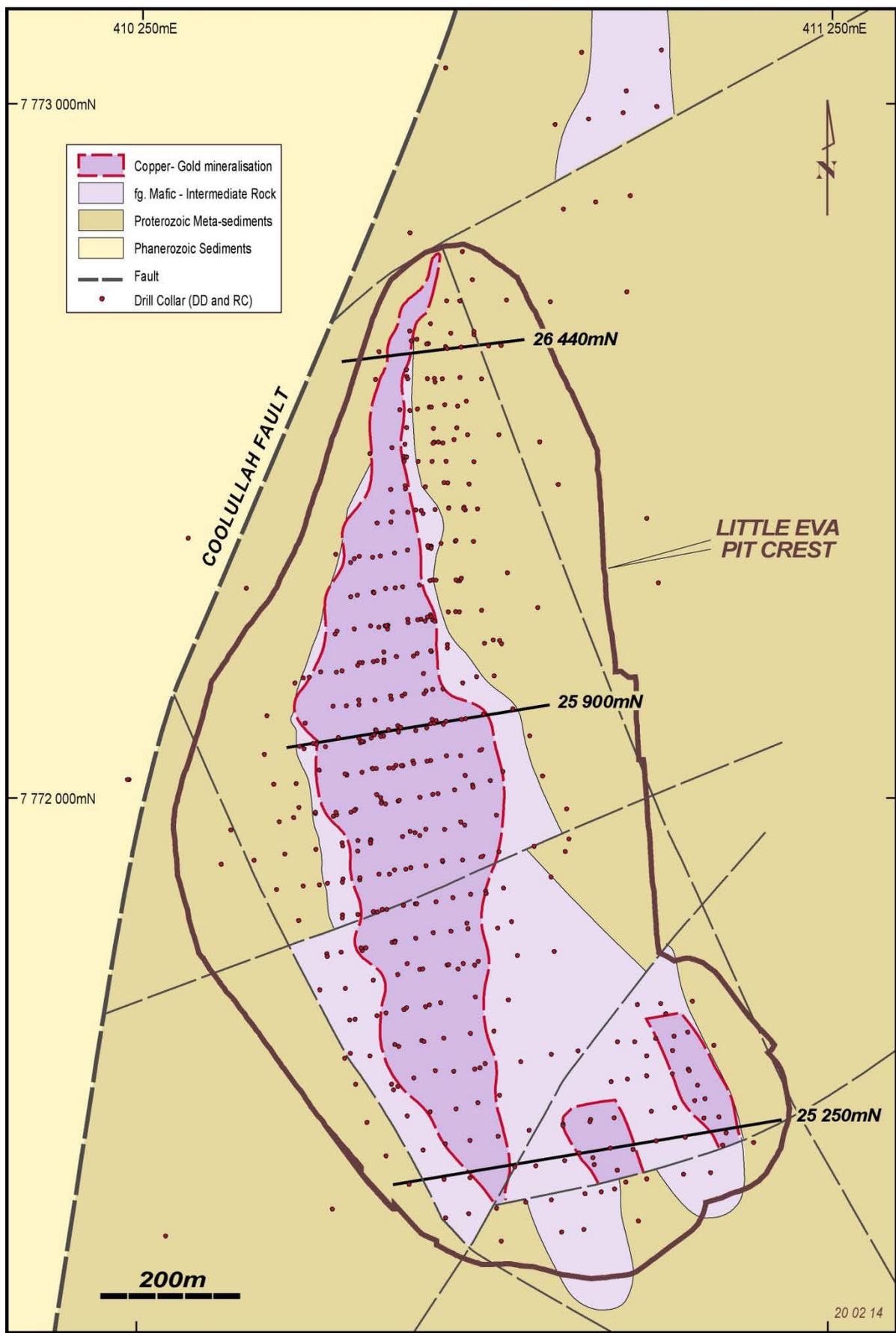
- Pre-strip of oxidised rock and copper oxide mineralisation
- Construction of a 7 million tonnes per annum capacity process plant
- Power via a substation at Dugald River and 33kV overland HV power line
- Open pit mining of 7-8 million tonnes per annum of ore
- Stockpile of low grade ore
- Direct tip of ore to a single-stage gyratory primary crusher or to a Run-of-Mine (ROM) pad
- Two stage grinding via a primary semi-autogenous grinding (SAG) mill and ball mill to 210µm
- Flotation of copper-gold concentrate
- Thickening and filtration of concentrate
- Trucking of concentrates in containers to a rail siding at Cloncurry
- Flatbed rail to Townsville port for concentrate unloading and export

Mineral Resource Estimate

The resource estimate for the Little Eva deposit is based on 7,139 metres of diamond drilling (49 holes) and 58,964 metres of reverse circulation drilling (387 holes). Mineralisation is hosted in a variably altered (albite-carbonate-hematite-magnetite) vesicular mafic - intermediate unit. The majority of the unit is altered, quartz veined and mineralised with sulphides occurring predominantly as chalcopyrite with only minor amounts of pyrite and bornite. Sulphide minerals comprise on average only 2-3% of the rock but locally can range up to 25%.

The Little Eva deposit is 20 metres wide at its northern extremity where it dips at 70° to the east and has grades averaging 1.5-2.0% copper. The deposit thickens toward the south and in the central and southern portions the host unit is near vertical with local overturning of contacts, the deposit is up to 400 metres wide and averages 0.5% copper. The deposit is some 1.3 kilometres long.

For personal use only



Plan of the geology of the Little Eva deposit with drill collars highlighting the large number of drill holes and the outline of the crest of the proposed open pit.



Mineralisation is terminated to the north by a fault and there is potential for extensions to the mineralisation. The geometry of the deposit is more complex at its southern limit and there may be potential for extensions to the south.

The deposit is open below the planned pit and there is potential for underground operations below the pit, particularly in the high grade (1-2% copper) northern portion of the deposit.

The resource estimate for the Little Eva deposit was reported according to the 2004 Edition of the JORC Code in an ASX release dated 19 December 2011 and estimates for the three satellite deposits were detailed in an ASX release dated 23 April 2012.

Resources at Little Eva were estimated by Altona geologists who were assisted by Optiro who also completed an audit of the final resource. Resource estimates apply only to sulphide mineralisation in fresh rock. Oxide mineralisation is not reported.

The resource was constrained by 3-D models of host lithology, oxidation boundaries and domains with distinct grade characteristics. Multiple Indicator Kriging (MIK) was used to estimate recoverable grades into 25 metre by 25 metre by 10 metre panels. Best practice QA/QC procedures have been employed at Little Eva and an independent audit of data integrity and QA/QC protocols was completed in 2006. Altona has completed a further extensive data validation programme through 2013 which will be reported together with an updated resource estimate in coming months.

Mineral Resource Estimate for the Little Eva Project

Deposit	Classification	Tonnes	Copper (%)	Gold (g/t)
Little Eva	Measured	36,260,000	0.63	0.08
	Indicated	41,390,000	0.48	0.08
	Inferred	22,620,000	0.49	0.11
	Sub-total	100,270,000	0.54	0.09
Ivy Ann	Indicated	5,400,000	0.60	0.08
	Inferred	2,050,000	0.49	0.06
	Sub-total	7,450,000	0.57	0.07
Lady Clayre	Indicated	3,590,000	0.60	0.24
	Inferred	10,410,000	0.54	0.18
	Sub-total	14,000,000	0.56	0.20
Bedford	Indicated	1,330,000	1.04	0.21
	Inferred	370,000	0.83	0.16
	Sub-total	1,700,000	0.99	0.20
TOTAL		123,420,000	0.55	0.10
Contained Metal		Copper (tonnes)	Gold (ounces)	
		675,000	384,000	

* This tabulation excludes the 'copper-only' deposits as they were not considered as part of this DFS. A full resource tabulation for Altona's greater Cloncurry Project is appended to this document.

Optiro completed independent estimates of recoverable resources (Uniform Conditioning) for the Ivy Ann, Lady Clayre and Bedford deposits. These deposits are currently scheduled to provide 8 million tonnes of feed over the life of the Project.

The resource estimates for all four deposits comprising the Little Eva Project are being reviewed and new geological logging information and interpretations are being incorporated into an updated resource model. This will provide better geological controls on domains used for resource estimation and drilling at Lady Clayre and Ivy Ann that was completed after the 2011/2012 estimates were made. These updates will be reported according to the 2012 Edition of the JORC Code.

A new discovery, Turkey Creek which lies 1.5 kilometres east of Little Eva, was made after the 2012 DFS was completed (see ASX release dated 13 September 2012). This deposit is only partly drilled and an initial resource estimate will require further drilling.

Copper Only Deposits

Seven 'copper-only' deposits, in particular Blackard and Scanlan, were included in a DFS completed in 2005. These deposits contain some 840,000 tonnes of copper and mineralisation is hosted in deeply weathered (clay) sediments with fine-grained disseminated native copper metal. Conventional sulphide mineralisation in fresh rock underlies the native copper mineralisation. Native copper mineralisation whilst soft, has metallurgical recoveries of 55-60% and consequently these deposits were not considered in this study.

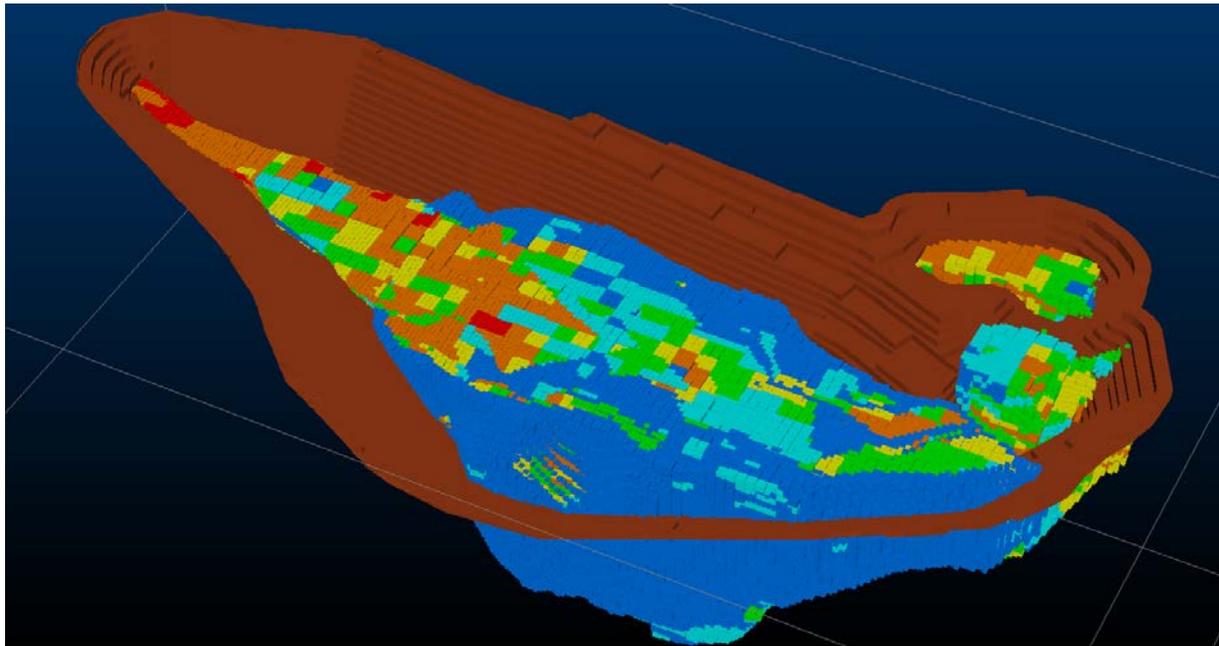
Mining

George, Orr & Associates conducted a full stability analysis of the planned Little Eva pit based on geotechnical analysis of 17 oriented diamond drillholes covering both an earlier starter-pit design and the final pit utilised in this study. Overall ground conditions are good to moderate and overall slope angles of 43 degrees, inclusive of pit ramps, have been recommended and are used in the Little Eva pit design. The eastern pit wall has the best ground conditions and therefore all access ramps have been placed on this wall.

Pit optimisation was completed by Optiro. The parameters used to generate the optimised pit designs were based on mining costs obtained from market enquiry in November 2011. The metallurgical recoveries used in optimisation were derived by GRES and OZMET from all pre-existing testwork and testwork carried out by ALS Ammtec in 2011 and 2012. Economic and other assumptions were supplied by Altona.

The revised costings for the 2014 update were not used to generate new pit optimisations. New optimisations using current cost data and cut-off grade analysis remain an opportunity to increase the Little Eva Project reserves.

The mine design includes a 30 metre wide dual lane in-pit haul road at a 10% gradient on the eastern wall of the final pit. The pit is approximately 1,300 metres long, 600 metres wide and 240 metres deep. A graphical illustration of the pit is given in the figure below.



3D perspective of the shape of the Little Eva open pit in year 9 of operation with the block model shown schematically and colour coded for copper grade.

The mining dilution factor assumed was 6% and an ore loss factor of 4% was applied. These reflect the large scale 'bulk' nature of the deposit. Dilution was assumed to have a grade equivalent to the marginal cut-off grade.

The degree of selectivity in mining varies in differing domains of the deposit and reserve modelling is based upon a minimum mining unit of 6.25 metres x 6.25 metres x 5 metres. Mine equipment has been scaled to permit selective mining with this size of mining unit. The opportunity exists to increase selectivity and grade and thus reduce unit costs once ore is exposed and mining commences.

The mining strategy involves a 13.4 million tonnes pre-strip of a starter-pit. After the pre-strip is completed the pit will have a strip ratio of 1.8:1. To sustain a 7 million tonnes per annum production rate, stripping is planned to continue at elevated rates for 18 months after the commencement of production. The pit requires one further pushback towards the end of mine life to reach its design depth of 240 metres.

Mining will be carried out using conventional drill and blast rigs with backhoe excavation being undertaken by diesel excavators and dump truck haulage. The main mining fleet consists of two EX2600 250 tonne excavators matched to twelve CAT 785 136 tonne trucks. This fleet is supplemented by one EX1900 190 tonne excavator matched to six CAT 777 100 tonne trucks.

Mine waste will be transported to a dump adjacent to the pit and it is envisaged that the dump will be an integral part of the tailings storage facility. Waste will also be used to construct an engineered flood protection bund around the pit and tailings dam walls. The bund will re-direct Cabbage Tree Creek away from the pit.

The ore will be delivered to the ROM pad where there is the capability to direct feed from mine trucks to a gyratory crusher with 375kw of installed power capable of accepting 1 metre ROM rock at a rate of 1,100 tonnes per hour.

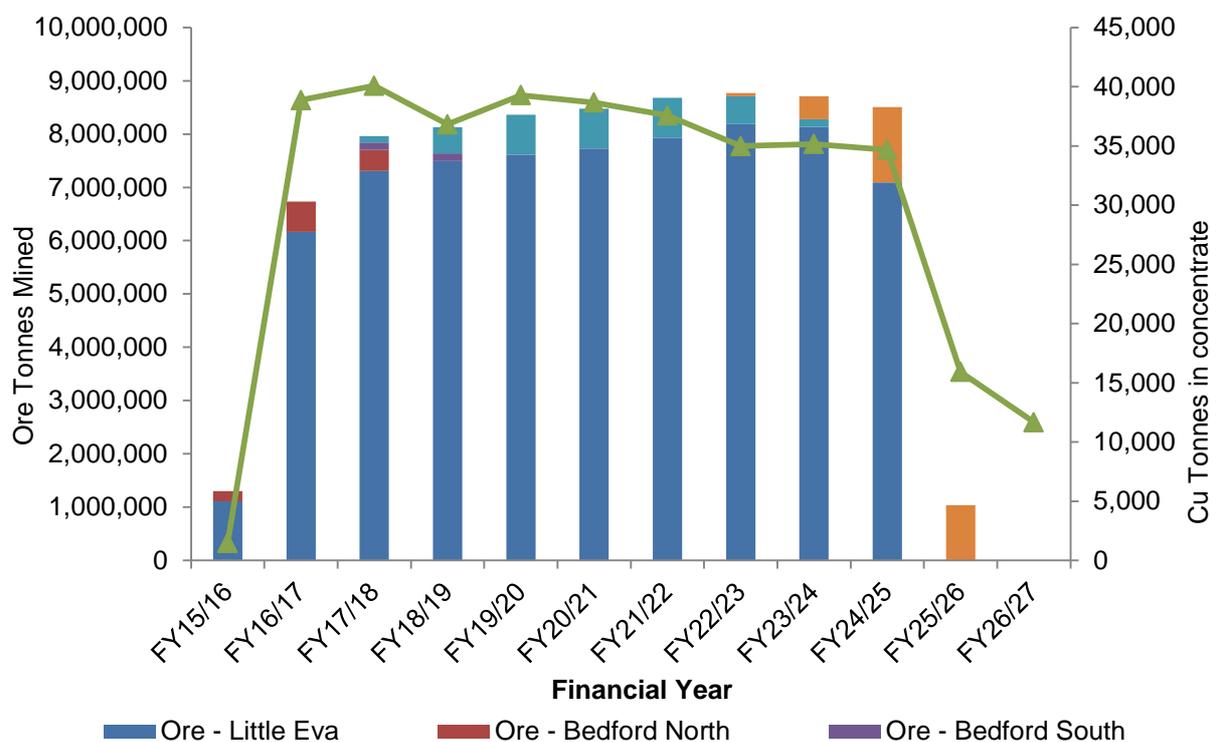
For the study update, multiple mining contractors responded to a formal market enquiry to provide current and competitive pricing for contract mining services and the rates offered are reflected in the mining unit rates used in the financial analysis. Current mining rates are materially lower than those obtained in late 2011 for the 2012 DFS. In order to maximise cost effectiveness, Altona intends to directly lease the majority of the mine equipment and to provide the fuel and explosives to the fleet which will be operated and maintained by the mining contractor.

Optimisation of the satellite deposits was completed utilising the same late 2011 cost inputs as Little Eva. However, it was assumed that fixed costs were covered by the Little Eva operation and the cost of haulage to the mill was added. Metallurgical testwork on these deposits indicate that metallurgical characteristics and recoveries are not materially different from Little Eva. Scheduling of ore extraction from the satellite deposits was set at approximately 750,000tpa taking into account the size of the pits and the rate of bench advance. Marginal ore was not transported to the Little Eva mill.

Satellite deposits were not modelled to the same level of detail as Little Eva as their contribution is small. New pit optimisations and designs will be completed utilising current mining contract rates once new resource estimates are available and the deposits are fully defined.

It is assumed that the three satellite pits will be mined starting from the first year of production and at a rate of 0.5 to 1 million tonnes per annum in the order Bedford, Ivy Ann and Lady Clayre. Bedford, Turkey Creek and Lady Clayre lie within current mining leases and a new application is being prepared for Ivy Ann. Should Turkey Creek be incorporated into the mine plan, given its location partly within the footprint of the Tailings Storage Facility ("TSF"), it will be mined early in the mine life.

Mining will deliver 7 million tonnes per annum of approximately 0.6% copper feed to the processing plant whilst stockpiling low grade material for later treatment. The mining schedule and schedule of production of copper in concentrate is based on the ore reserves below and is shown in the chart below.



* Milling of stockpiled low-grade ore continues until FY26/27 after completion of mining.

Ore Reserves

The Little Eva Project Ore Reserve was initially reported according to the 2004 Edition of JORC Code in the ASX release dated 14 May 2012.

The Ore Reserve estimate is included within the resource estimate given above. Ore Reserves for Little Eva were estimated by Optiro. Ore Reserves for Ivy Ann, Bedford and Lady Clayre were estimated by Altona based on Optiro's mining inventory.

Reserve Classification	Tonnes	Copper (%)	Gold (g/t)	Copper (tonnes)	Gold (ounces)
Little Eva					
Proved	31,200,000	0.64	0.08	198,200	84,700
Probable	22,200,000	0.50	0.09	109,900	62,600
Ivy Ann					
Probable	3,500,000	0.60	0.08	21,000	9,000
Lady Clayre					
Probable	1,000,000	0.58	0.27	5,800	8,700
Bedford					
Probable	1,430,000	0.87	0.20	12,400	9,200
Total Proved and Probable Reserves (excl. stockpiles)	59,300,000	0.59	0.09	347,300	174,200
Little Eva Low Grade Stockpile					
Probable	15,400,000	0.18	0.06	28,100	30,900
Contained Metal Including Stockpile		Copper (tonnes)	Gold (ounces)		
		375,000	205,000		

There are some 1.9 million tonnes at 0.47% copper and 0.19g/t gold of inferred resources at Lady Clayre that are included in the mining schedule later in the Project life. These tonnes are not included in the Ore Reserve Statement or in the production targets given on page 7. Infill and extension drilling completed after the 2012 DFS should see conversion to indicated resources and these tonnes will be reflected in the next Reserve estimate.

Metallurgical Testwork and Process Design

The metallurgical and mineralogical classification of the deposit reflects the geological domains used in resource modelling. In this context, a review of extensive prior testwork was undertaken to ensure the representativeness of samples from each of three domains; north, central and south. Two additional large diameter core holes were drilled in 2011 to ensure complete spatial and grade variance coverage of the deposit.

Extensive prior mineralogical and metallurgical testwork formed the basis for a further testwork programme comprising milling, flotation, thickening and filtration to assist with process plant design and derivation of operating costs. Grinding and flotation/reagent testwork focussed on demonstrating that high copper and gold recoveries were achievable at a relatively low operating cost across all feed

grades that are planned. The testwork programme for the DFS was undertaken at ALS Ammtec in Perth and was supervised by GRES.

Standard milling and flotation technology will be used to generate approximately 150,000 tonnes of copper concentrate on an annual basis.

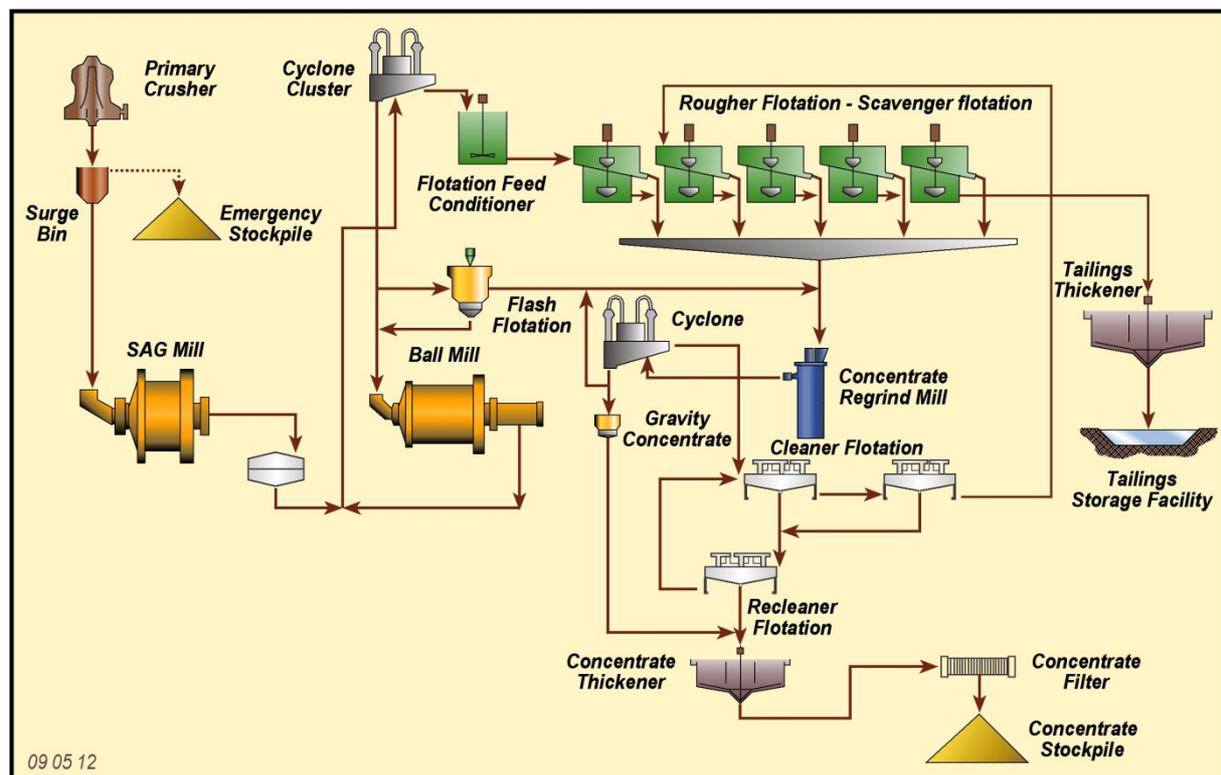
Testwork was undertaken without a flash flotation stage and indicates that the designed circuit will achieve a 96% copper recovery at a concentrate grade of 25% copper. Gold recovery is predicted to be 85% at a concentrate grade of 4g/t.

The flotation optimisation tests were performed using Perth tap water. Tests conducted with site water using the selected flotation conditions confirmed equivalent recoveries. A sample of the site water was analysed before and after contact with the ore and process reagents to check for potential operational and environmental concerns.

The processing circuit is a simple one and consists of:

- Single stage gyratory crushing
- SAG and ball milling
- Flash flotation
- Flotation
- Concentrate regrind
- Gravity recovery
- Concentrate thickening and filtration
- Tailings thickening and disposal

A standard flotation circuit is proposed as illustrated in the chart below.



Process flowsheet for the Little Eva plant.

Concentrate and process characteristics are:

Key Metallurgical Metrics

Tonnes of concentrate (dry)	150,000pa
Moisture content	8%
Copper recovery	96%
Gold recovery	85%
Copper grade in concentrate	25%
Gold grade in concentrate	4g/t
Concentrate penalty elements	None

The concentrate will be filtered to 8% moisture and stored in a concentrate shed prior to transport to market.

Numerous tailing and representative waste rock samples were subject to geochemical analysis and were found to be non-acid forming due to the low levels of contained sulphur and high carbonate content. The tailings and waste will not generate acid drainage during storage and can be disposed safely using standard mining and processing practice.

Process Plant and Infrastructure

The process plant is to be located approximately 70 kilometres north-west of Cloncurry and can be accessed via a sealed highway and a site access road of approximately 12 kilometres.

A simple grinding and flotation plant will be installed adjacent to the Little Eva open pit and will be designed to process 7 million tonnes per annum of ore for a minimum period of 12 years.

Infrastructure to be installed to support the operation includes:

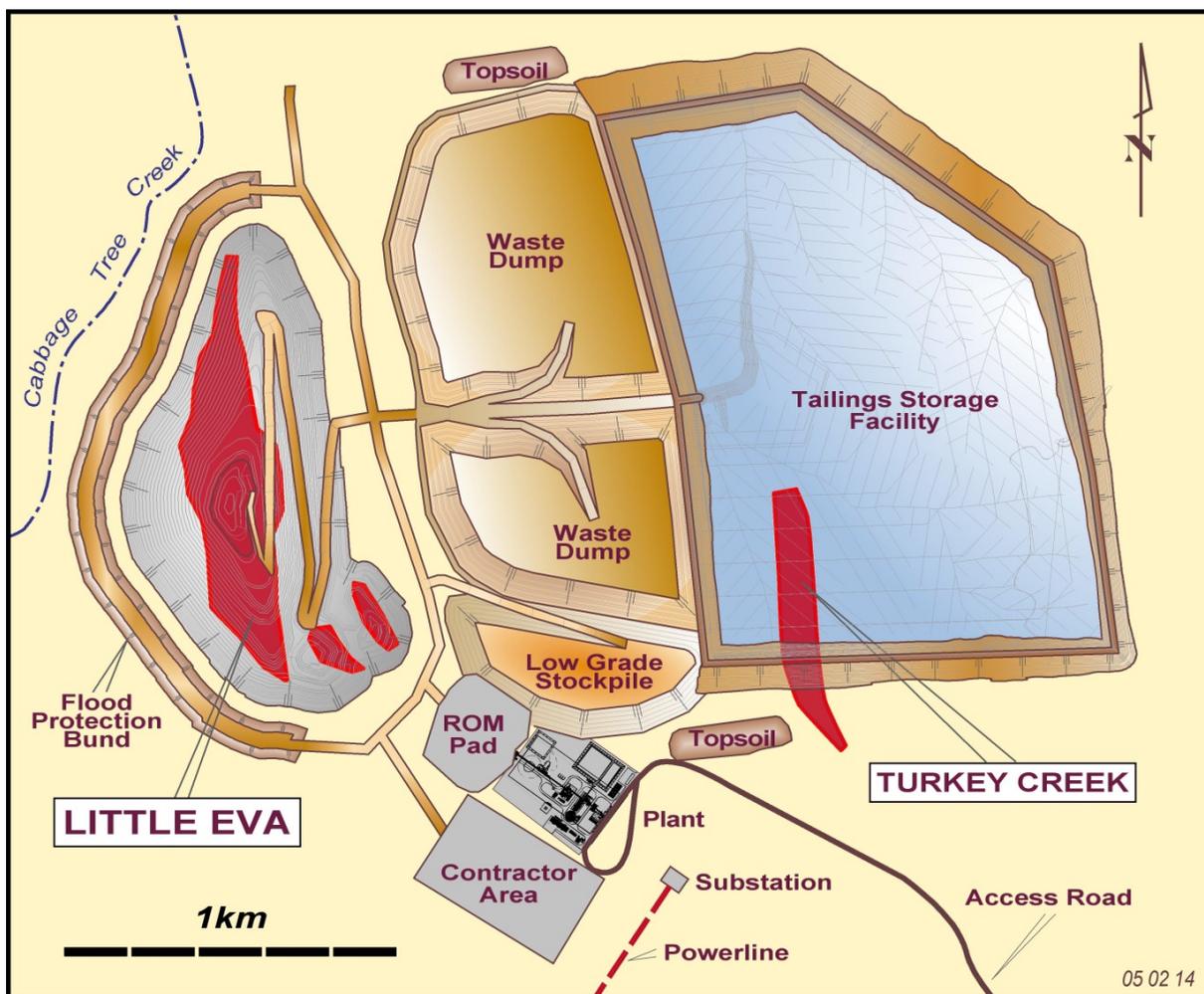
- Access and haul roads
- Tailings storage facility
- Bunds to manage surface water
- Fuel storage and dispensing
- 33kV overland HV power line from proposed Dugald River mine
- Plant site laboratory
- Accommodation village
- Administration facilities
- Workshop and warehousing facilities
- Borefield and water storage infrastructure
- Mining contractor infrastructure
- Explosives magazine

With 26MW of installed drives, the average power draw for the processing plant during operations will be approximately 22MW. Power for the concentrator will be supplied from grid power via a 220kV overhead power line stepped down to 33kV at a substation at MMG's Dugald River zinc-lead-silver project for supply to the Little Eva plant. The DFS assumes that the proposed 220kV powerline for the Dugald River project is available to Altona for transmission of electricity. To allow for this Altona has included an infrastructure charge in its estimation of power costs.

Dugald River is a A\$1.5 billion zinc project. It is partly developed with 12.9 kilometres of underground development, accommodation camp, communication infrastructure, airstrip and sealed road access in place. Approximately A\$150 million has been invested to date into this Project. MMG have reported that the Project is subject to a review in 2014 prior to determining a final development timetable.

In the event that Dugald River does not install a power line to its site, a standalone power station at Little Eva is an option. A contractor would install and operate gas fired generators, at a cost of approximately 26 cents per kilowatt hour compared to the 16 cents per kilowatt hour used in the study.

Alternatively Altona could reduce site power costs by building the 75 kilometres of 220kv overhead power line from the Chumvale switchyard to the Little Eva site at a cost of approximately A\$50 million, which would be paid back within 3 years as a result of the lower power cost compared to using gas fired generators.



Plan of the Little Eva minesite showing the processing plant and associated infrastructure. The location of the Turkey Creek deposit is highlighted.

The TSF is located to the east of the pit, abuts the waste dump and comprises a single cell with embankments constructed utilising open pit mine waste.

The design of the TSF will have to be modified following the discovery of the Turkey Creek deposit in the southern part of the TSF. The possibility to operate the northern portion of the facility whilst Turkey

Creek is being mined will be investigated. An opportunity exists to reduce tailings disposal costs by early mining of Turkey Creek followed by in-pit tailings disposal.

The TSF design incorporates a basin under-drainage system to reduce seepage, increase tailings density, and improve the geotechnical stability of the TSF. Solution recovered from the decant system will be pumped back to the plant for reuse in the process circuits.

Tailings will be discharged into the TSF by sub-aerial deposition methods, using a combination of banks of spigots at regularly spaced intervals from all embankments to direct the supernatant pond to the decant towers. The active tailings beach will be regularly rotated.

Most of the Project water supply will come from pit dewatering bores with the water to be stored in a raw water dam. The remainder will be sourced from regional water supply bores. Approximately 50% of the water discharged to the tailings facility as part of the processing will be decanted and returned to the plant for reuse. There is further water supply capacity in the Lake Julius pipeline which is adjacent to the plant should the need arise.

Communication is available via Next G and mobile phone coverage being provided by Telstra as part of its service delivery to the Dugald River Project.

A village is to be constructed to accommodate the Project workforce. This will be a purpose built camp that will accommodate approximately 220 personnel at any one time and will be utilised for both construction and operations. It is assumed that a portion of the workforce will live locally.

Logistics

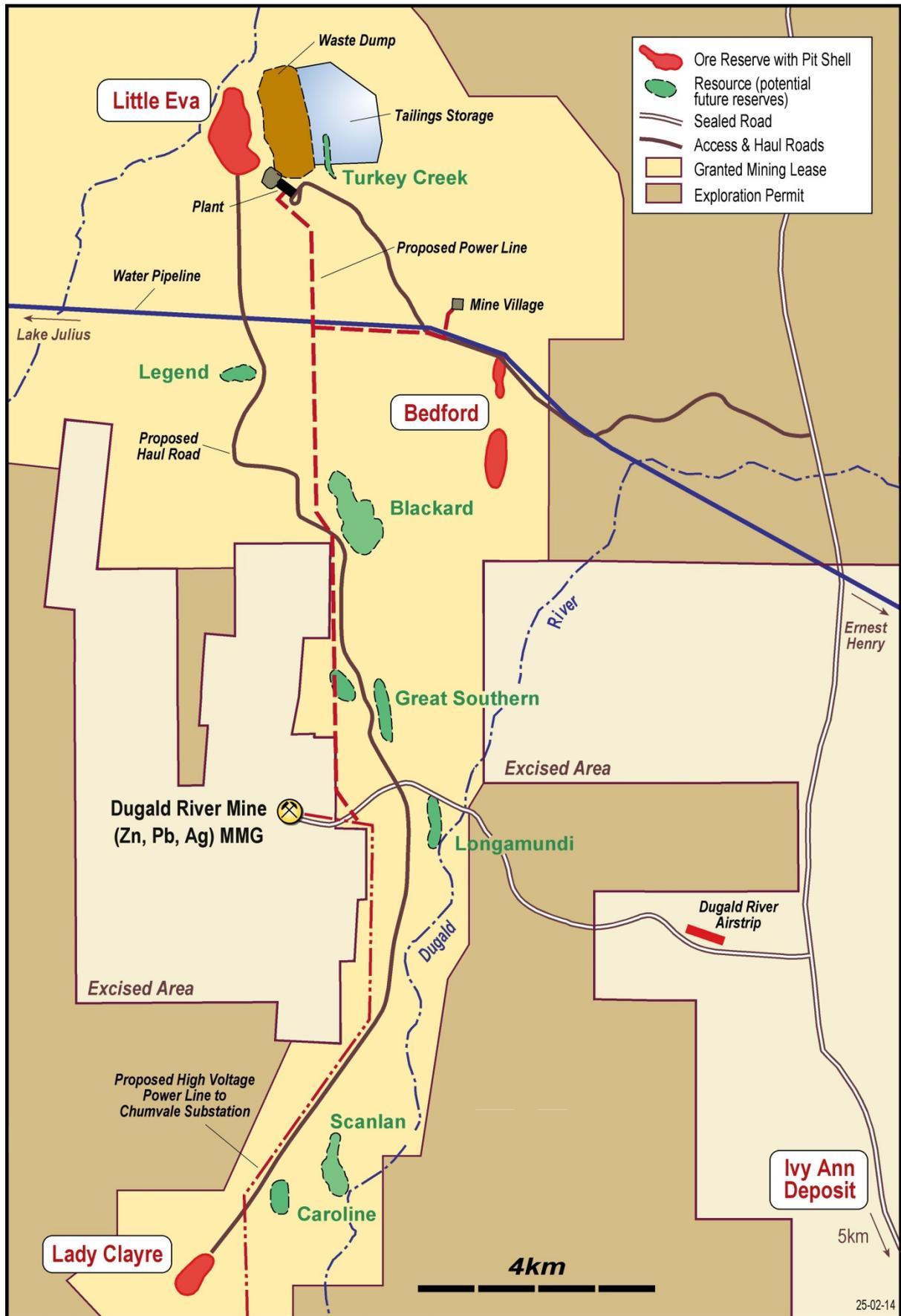
The highway from Cloncurry to Burketown and Normanton on the Gulf of Carpentaria is a full width sealed road that passes 12 kilometres to the east of the proposed plant site. At Cloncurry, it meets the Barkly Highway from Townsville to Mt Isa.

The concentrate will be containerised and transported from site by road train to the Cloncurry rail loading facility. The containers will then be loaded onto flatbed rail cars for dispatch to the Townsville port. The rail system between Cloncurry and Townsville is well serviced with multiple trains to Townsville each week. Once at the Townsville port, the containers will be unloaded directly into the ships' hold.

Townsville port is a well-established international port capable of handling bulk mineral materials with over 4 million tonnes of import/export trade mineral handled annually.

All infrastructure required to operate in this manner is already in place and available to the Project. Containers will be supplied as a part of a complete concentrate load and transport logistics arrangement with a major logistics operator.

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Infrastructure in the Little Eva - Dugald River area showing Altona tenure.

Implementation Plan

Mining

Contract mining has been selected as the preferred option for mining. This provides a degree of flexibility which will be highly beneficial during the ramp up phase of the Project. It is envisaged that Altona will be responsible for the lease of the majority of the mining fleet and for the supply of fuel and explosives.

Plant

It is proposed to deliver the process plant, associated services and site infrastructure on a turnkey project management, design and construction basis. The process plant and infrastructure would be undertaken on a guaranteed maximum price basis. Process plant performance guarantees would be sought from the Engineering, Procurement and Construction (EPC) contractor.

Project management, design, procurement of process equipment and project controls would be undertaken from Brisbane and Perth. All site subcontracts will be controlled from site. Site works would be performed mainly in horizontal packages by suitably qualified and capable Queensland organisations supplemented by construction expertise from the EPC contractor.

Infrastructure

The intent for those components of infrastructure that have not already been covered within the plant or mining scopes is to tender based on a lump sum, turnkey project management, design and construction basis.

Development Timetable

The key milestones for the Project assuming the completion of financing by December 2014 are:

- | | |
|--|----------------|
| • Start early commitments and front end engineering and design | December 2014 |
| • Award EPC Contract | April 2015 |
| • Start site works | June 2015 |
| • Little Eva pre-strip commencement | October 2015 |
| • Plant commissioning commencement | June 2016 |
| • First concentrate production | September 2016 |
| • Full production | December 2016 |

Community, Permitting and Tenure

The Company has an agreement with the Kalkadoon People who hold a native title area over the Project area. A deed of the type required under the Native Title Act and an ancillary agreement were signed by the Company and appropriate representatives of the Kalkadoon People on 15 June 2006. The State of Queensland executed the Section 31 Deed on 29 June 2006.

An Environmental Impact Study and the Environmental Management Plan ("EMP") for the Project have been accepted by the Queensland Department of Environment and Heritage Protection ("DEHP") and an Environmental Authority has been issued. The mine plan allows for closure and rehabilitation costs and the conditions of the Environmental Authority include lodgement of a bond with

the authorities. In order to capture any changes to the Project resulting from this DFS since the EMP was lodged (such as Turkey Creek pit), an updated EMP will be required to be lodged with DEHP.

Mining Leases were granted on 19 November 2012 and total 143 square kilometres and are situated across two pastoral land holdings. Compensation agreements relating to the mining leases have been agreed.

A Plan of Operations is required to be lodged prior to commencing operations.

Operations and Workforce

The Project is expected to directly employ some 300 people during the construction phase reducing to around 280 during operations.

Most of the construction workforce will be provided by contractors from the north-west Queensland region.

During the operations phase, employment will be made up of a mixture of people living in Cloncurry commuting daily to site and Fly In / Fly Out (“FIFO”) people from the regional centres which already provide personnel to the major mining centres in north-west Queensland.

Sales and Marketing

The payability of metal in concentrates, smelter treatment charges, refining charges, shipping and insurance costs for the concentrates have been estimated from Altona’s market experience from its current operations, industry norms and by benchmarking against recent transactions. For copper-gold concentrates it assumed that Life of Mine (“LOM”) treatment and refining charges (“TC/RC”) will average US\$75 per tonne, US7.5¢ per pound respectively and that no penalties will be payable. Copper payability is assumed to be 96.5% and gold approximately 75% as a result of a standard 1g/t deduction.

It has been assumed that the concentrate will be shipped to Asian markets.

Capital Costs

All capital costs relevant to the DFS Project scope were reviewed. Updated capital cost estimates are based on December 2013 pricing from local and international equipment suppliers and local engineering and contracting firms.

The process plant and infrastructure scope was unchanged but competitive pricing and lower contractor margins resulted in a A\$12 million saving (6.7%) compared to the May 2012 DFS.

Pricing for mining mobilisation and pre-strip was A\$10 million lower as a result of the lower contract mining rates, particularly for near surface waste removal. Capital costs exclude financing costs and are detailed in the table below.

Capital Costs	A\$ (million)
Mining mobilisation and pre-strip	52
Process plant and infrastructure	168
Tailings storage facility	18
Accommodation village	18
First fill, spares etc	12
Owners costs	8
Contingency	18
Total	294

The pre-strip and pit cutback continues for 18 months after the commencement of production and is considered to be a sustaining capital cost.

LOM sustaining capital requirements are given below. Mine development costs fell A\$11 million due to lower mine contractor rates particularly for near surface waste removal. Use of the mining contractor to place mine waste directly onto the tailings embankments reduced material rehandling costs and delivered a A\$20 million saving in sustaining capital.

Sustaining Capital Costs	A\$ (million)
Mine development	74
Processing plant and infrastructure	14
Tailings	19
Rehabilitation	10
Total	117

Operating Costs

Updated operating cost estimates are based on December 2013 labour rates and quotations from utilities, contractors and reagent suppliers and are detailed in the table below. Contract mining rates have been refreshed in the DFS based on budget submissions provided by suitably qualified mining contractors. Total mining cost inclusive of Altona's mining staff is now A\$3.37 per tonne of rock moved compared to A\$3.78 (November 2011 pricing), a reduction of 11%.

Average Operating Costs per Tonne	A\$ (per tonne milled)
Mining	9.33
Processing	7.39
General and Administration	2.13
Total onsite costs	18.85
Concentrate transport and sales	2.73
Total operating costs	21.58
Royalties	2.48
Sustaining capital costs	1.52
Total Cash costs	25.58

Project Economics

The Project will generate an average annual EBITDA of A\$117 million in years 1-5. The average operating cost is A\$21.58 per tonne compared with estimated average revenue of A\$38 per tonne.

Key Financial Metrics	A\$ (million)
Capital costs	294
Sustaining capital	117
Revenue (net smelter return) pa *	307
EBITDA pa *	117
Pre-tax NPV (unleveraged 7.5% real discount rate)	346
IRR%	29%

* Average, years 1-5.

A discount rate of 7.5% was chosen to reflect that used in the 2012 study. This rate was originally chosen to match that used by peers for similar low risk projects in Australia.

Metal prices and exchange rates used in this study are benchmarked against broker consensus forecasts and various individual research house estimates. The values adopted are:

Financial Year Ending June	Copper (US\$/lb)	Gold (US\$/oz)	AUD:USD
2014 year to date	3.25	1,300	0.89
2015-2017	3.20	1,230	0.85
2018 onwards	3.00	1,300	0.80

Sensitivities of NPV to major variables are shown below.

Project Sensitivities (NPV A\$ million)	Increase	Decrease
Copper price +/- 10%	+169	-170
Foreign exchange +/- 10%	-149	+181
Capital costs +/- 10%	-29	+29
Operating costs +/- 10%	-79	+79
Addition of 1 year mine life (e.g. Turkey Creek)	+50	N/A
Real discount rate +/- 2% (5.5-9.5%)	-58	+68

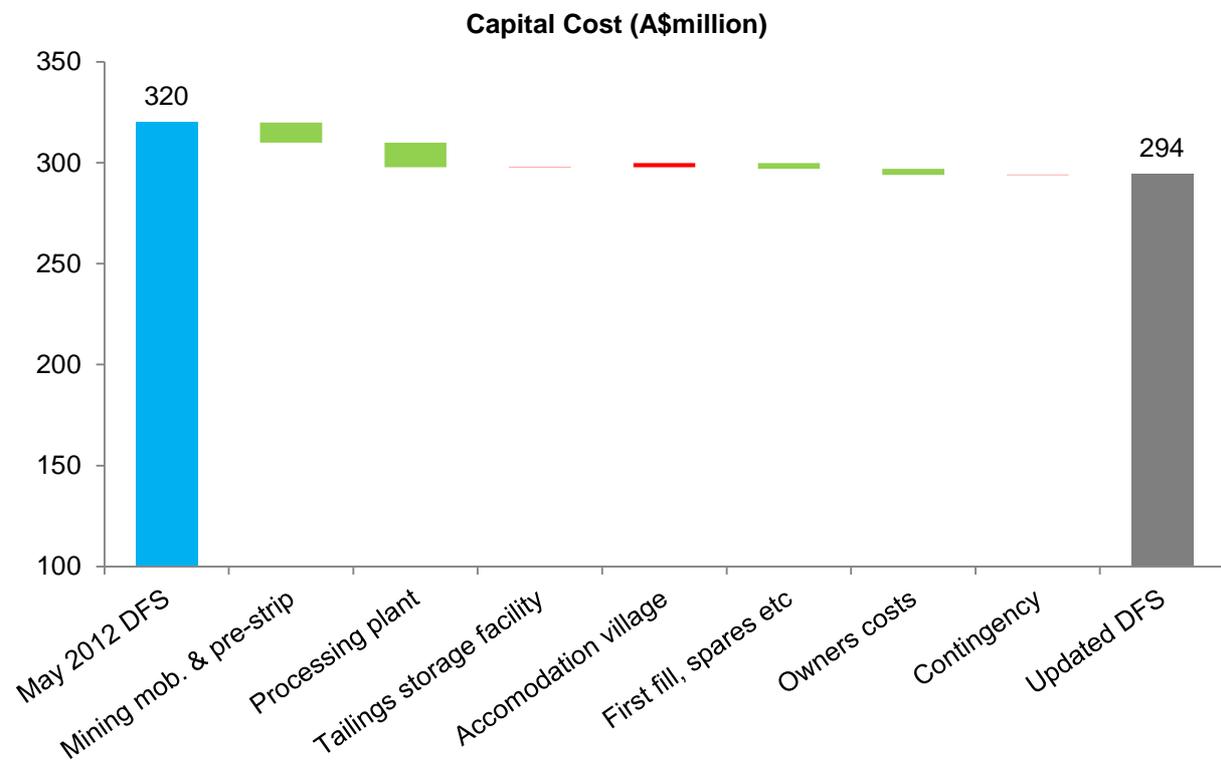
Taxation and Royalties

The Company has tax losses carried forward to later income years providing they are available to it under the current taxation provisions. As at 30 June 2013, the tax losses totalled approximately A\$60.4 million. There can be no assurance that such losses will be available.

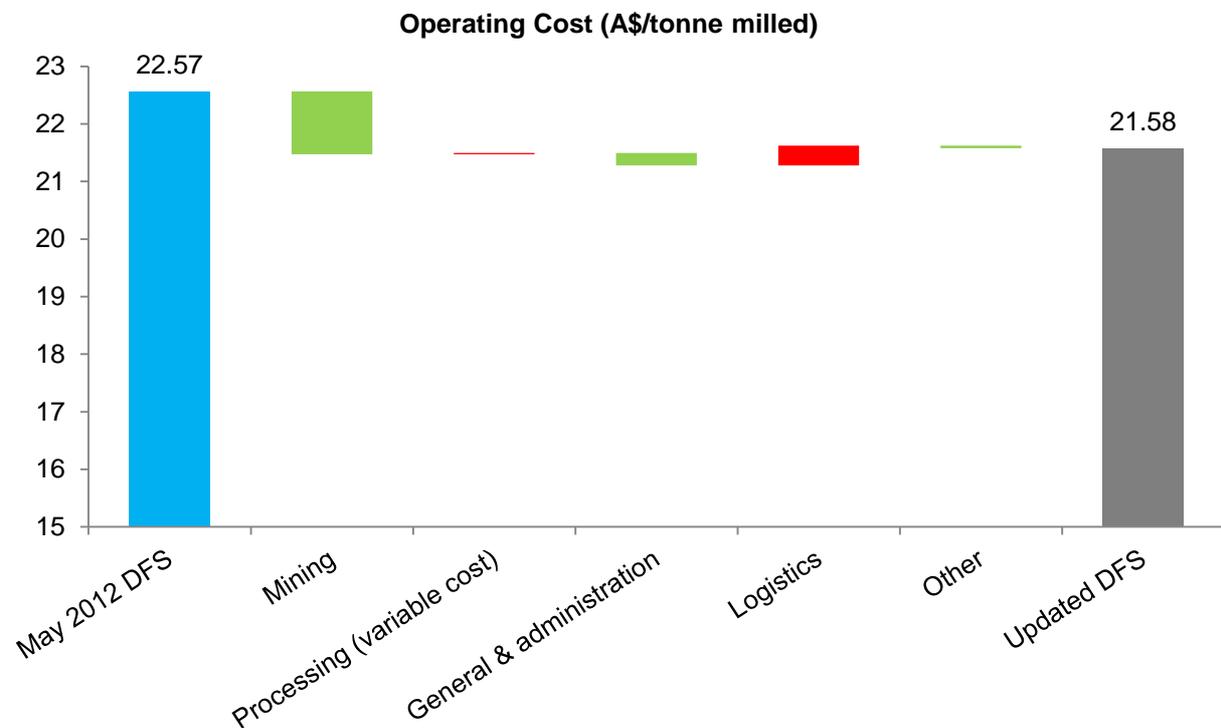
Royalties of approximately A\$191 million are payable over the life of the mine to the Queensland government and three private entities.

Changes from May 2012 DFS

The reconciliation of capital costs from the May 2012 DFS to this update is given below.

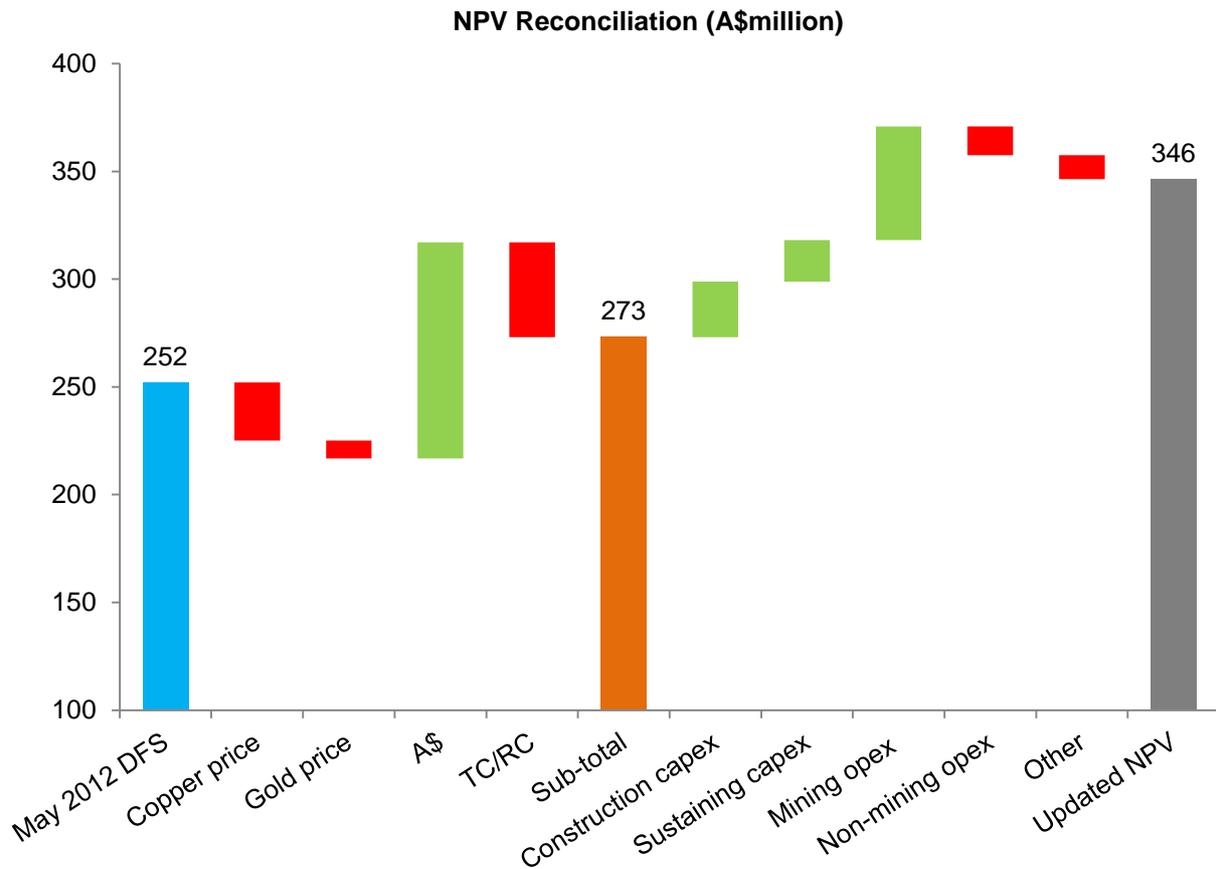


The reconciliation of operating costs per tonne from the May 2012 DFS to this update is given below.



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The reconciliation of NPV from the May 2012 DFS to this update is given below.



Opportunities

There are numerous opportunities to enhance the Little Eva Project and these are listed below.

- Increased reserves from incorporation of post 2012 DFS drilling at Lady Clayre, Ivy Ann and the Turkey Creek discovery in resource and reserve updates.
- Application of lower mining costs to pit optimisation.
- Incorporation of Turkey Creek into Tailing Storage Facility design.
- Infrastructure sharing with the adjacent Dugald River Project.
- Processing of native-copper ore and underlying sulphide ore from the 'copper-only' deposits not included in this DFS.
- Potential for underground mining of higher grade resources at the northern end of the Little Eva Pit.
- Delineation of resources and reserves at advanced exploration targets.
- Exploration potential.
- Near surface copper oxide mineralisation mined in pre-strip and not included in resource estimates or studies.

Competent Person Statement and JORC Compliance

Responsibility for entire release: Information in this ASX release that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves, is based on information compiled by Dr Alistair Cowden, BSc (Hons), PhD, MAusIMM, MAIG and Dr Iain Scott PhD Min. Processing, BSc Met. (Hons) who are both full time employees of the Company and who have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (The JORC Code). Dr Alistair Cowden and Dr Iain Scott consent to the inclusion in the release of the matters based on their information in the form and context in which it appears.

Copper equivalence: When used, copper equivalence refers to copper in concentrate, not resources or reserves, or drill results. Revenues from gold is simply equated to copper revenue.

Reserve estimates: The information in this ASX release relating to estimates of Ore Reserves has been extracted from the ASX release *Little Eva: A new large scale copper development*, 14 May 2012, which summarised the Little Eva 2012 Definitive Feasibility Study.

The ASX release is available for review on the Altona website at www.altonamining.com. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the market announcement continues to apply and has not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not materially modified from the original market announcement.

There are no changes to the reserve estimates for the Little Eva Project. The reserve estimates herein were prepared and first disclosed under the JORC Code 2004. These estimates have not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.

Resource estimates: The information in this ASX release relating to estimates of Mineral Resources has been extracted from the following reports:

ASX Release Date	Title of ASX Release	Outline of Relevance
26 July 2011	Roseby Resource passes one million tonnes of contained copper	Initial resource estimate for Little Eva deposit with 2004 JORC Table 1.
19 December 2011	Little Eva turns one hundred	Resource estimate update for Little Eva deposit with reference 26 July 2011 ASX release.
23 April 2012	Further resource upgrades at Roseby Project	Resource estimates for Bedford, Ivy Ann and Lady Clayre deposits with relevant 2004 JORC Table 1.
14 May 2012	Little Eva: A new large scale copper development	Little Eva Definitive Feasibility Study. Included an updated resource estimate for Little Eva due to the removal of surface oxide mineralisation from the resource estimate reported on 19 December 2011.
3 July 2012	15% Resource Upgrade at Roseby Project	Resource estimates for the Blackard and Scanlan deposits with relevant 2004 JORC Table 1.
22 August 2012	Further Resource Upgrade at Roseby Project	Resource estimate for the Legend deposit with 2004 JORC Table 1.

These ASX releases are available for review on the Altona website at www.altonamining.com. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not materially modified from the original market announcement.

There are no changes to the resource estimates for the Little Eva Project. The resource estimates herein were prepared and first disclosed under the JORC Code 2004. These estimates have not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.

Cloncurry Project Resource Estimates by Deposit

DEPOSIT	TOTAL			CONTAINED METAL		MEASURED			INDICATED			INFERRED		
	Tonnes	Grade		Copper	Gold	Tonnes	Grade		Tonne	Grade		Tonnes	Grade	
	million	Cu %	Au g/t	tonnes	ounces	million	Cu %	Au g/t	million	Cu %	Au g/t	million	Cu %	Au g/t
LITTLE EVA PROJECT - COPPER GOLD DEPOSITS														
Little Eva	100.3	0.54	0.09	538,000	271,000	36.3	0.63	0.08	41.4	0.48	0.08	22.6	0.49	0.11
Ivy Ann	7.5	0.57	0.07	43,000	17,000	-	-	-	5.4	0.60	0.08	2.1	0.49	0.06
Lady Clayre	14.0	0.56	0.20	78,000	85,000	-	-	-	3.6	0.60	0.24	10.4	0.54	0.18
Bedford	1.7	0.99	0.20	17,000	11,000	-	-	-	1.3	1.04	0.21	0.4	0.83	0.16
Sub-total	123.4	0.55	0.10	675,000	384,000	36.3	0.63	0.08	51.7	0.52	0.09	35.5	0.51	0.13
COPPER ONLY DEPOSITS														
Blackard	76.4	0.62	-	475,000	-	27.0	0.68	-	6.6	0.60	-	42.7	0.59	-
Scanlan	22.2	0.65	-	143,000	-	-	-	-	18.4	0.65	-	3.8	0.60	-
Longamundi	10.4	0.66	-	69,000	-	-	-	-	-	-	-	10.4	0.66	-
Legend	17.4	0.54	-	94,000	-	-	-	-	-	-	-	17.4	0.54	-
Great Southern	6.0	0.61	-	37,000	-	-	-	-	-	-	-	6.0	0.61	-
Caroline	3.6	0.53	-	19,000	-	-	-	-	-	-	-	3.6	0.53	-
Charlie Brown	0.7	0.40	-	3,000	-	-	-	-	-	-	-	0.7	0.40	-
Sub-total	136.7	0.61	-	840,000	-	27.0	0.68	-	25.0	0.64	-	84.7	0.59	-
TOTAL	260.1	0.58	0.05	1,515,000	384,000	63.2	0.65	0.05	76.7	0.55	0.06	120.1	0.56	0.04

See ASX release of 26 July 2011, 19 December 2011, 23 April 2012, 3 July 2012 and 22 August 2012 for full details of resource estimation methodology and attributions.

Note: All figures may not sum exactly due to rounding.

Little Eva is reported above a 0.2% copper lower cut-off grade, all other deposits are above 0.3% lower copper cut-off grade.