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## Hillside Extended Feasibility Study Results

Rex Minerals Ltd (Rex) has completed the Extended Feasibility Study (EFS) for its 100% owned Hillside Project on the Yorke Peninsula, South Australia. The results have significantly improved the Project's competitive fundamentals and materially reduced the upfront capital investment.

Key outcomes from the EFS include:

- A stand-alone copper-gold project with an initial 13+ year mine life at a processing rate of 6 million tonnes per annum (Mtpa).
- Annual average production over first 12 years of 129,000 tonnes of copper concentrate containing payable metal of:
  - 35,000t copper; and
  - 24,000ozs gold.
- A processing head grade of 0.66% copper and 0.17g/t gold over the first 12 years of production.
- Pre-production capital investment of A\$480 (US\$360) million and average operating costs (C1) of US\$1.61/lb.
- NPV<sub>(8%)</sub> of A\$188 million (post tax) and an IRR of 14% under base case assumptions.
- An updated Ore Reserve (released on 25<sup>th</sup> May 2015).
- A construction workforce of close to 500-550, reverting to approximately 500 when in operation.

This simplified and streamlined plan delivers a wide range of operational benefits, including:

- Smaller start-up footprint;
- Significant reduction in operating fleet;
- Simpler process flowsheet and material handling complexity;
- Lower ramp-up rate plus a more manageable production rate that leads to reduced economic risk; and
- Significantly higher equipment productivities.

Rex's Managing Director, Richard Laufmann, said: "The Hillside EFS has delivered a development strategy that sits within the previous design footprint, is technically robust, and requires lower capital investment. The revised Hillside Project is commercial and realistic, and it fits comfortably with current market expectations and conditions. In short the Hillside Project in South Australia now delivers lower risk, lower capital, lower operating cost and more attractive economics."

The following tables summarise the key outcomes of the Hillside EFS.

**Table 1: Life of Mine outcomes from the Hillside EFS**

<b>Life of Mine (LOM) Key Metrics</b>	
Project Revenue	A\$4,264 million
Operating Costs	A\$2,672 million
Pre-tax project operating cash flows	A\$1,593 million
Pre-production capital	A\$480 million (US\$360 million)
C1 cash costs (includes by-product credits)	US\$1.61/lb
Estimated average workforce numbers (during production)	~500
Pre-tax NPV (8%)	A\$309 million
Post-tax NPV (8%)	A\$188 million
Internal Rate of Return (IRR)	14%

**Table 2: Pre-Production summary**

<b>Pre-Production Capital</b>	
Construction (Plant, Equipment, TSF)	A\$206 million
Mining Fleet	A\$66 million
Pre-strip	A\$80 million
Other Infrastructure and Utilities	A\$21 million
Owners costs, Surface Works, First Fills, Spares, Other	A\$67 million
<b>Sub-Total</b>	<b>A\$440 million</b>
Contingency	A\$40 million
<b>Total Up-front Capital</b>	<b>A\$480 million (US\$360 million)</b>

**Table 3: Operating Cost Summary**

<b>Operating Cost Summary</b>	
Strip Ratio (after initial pre-strip)	6.7:1 (waste:ore)
Average Mining Cost per tonne (LOM)	A\$2.24/t
Average Mining Cost per ore tonne (LOM) (after initial pre-strip)	A\$17.75/t
Processing Cost per tonne	A\$9.15/t
Other Operating (G&A) Costs per tonne	A\$1.92/t
Average transport Costs per ore tonne of concentrate	A\$2.07t
Treatment and Refining Costs per ore tonne	A\$4.34/t
By-product Credit per tonne	(A\$6.52/t)
<b>Average Total Operating Costs per tonne (after pre-strip)</b>	<b>A\$28.71/t</b>
<b>C1 Cash Cost (includes by-product credits)</b>	<b>US\$1.61/lb</b>

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## **Project Fundamentals**

### **EFS Overview**

The removal of iron ore production from the process flowsheet has enabled a reconfiguration of the process infrastructure. This removed the need to construct a concentrate filtration and handling facility at the port and associated slurry pipeline, and negated the requirement to upgrade the existing port facility. Without the focus on maximum tonnage driven by inclusion at this time of iron ore, the key objectives now focus on dilution control, copper recovery (effectiveness) and mine productivity.

The overall outcome is a 6Mtpa process plant, with a smaller footprint and a simplified design, which allows for selective blending of the mined ore to achieve a higher metallurgical recovery. Collectively, the clear advantages are now lower risk, lower capital, lower operating cost and more attractive economics.

### **Construction Period and Workforce**

The development allows for a 20-month construction period, including a 12 month pre-strip. During construction, a workforce of approximately 500-550 will be required. This will reduce to approximately 500 during the operational phase.

### **Operating Mine Life and Mining**

An initial life of 13+ years, based on the production of a copper-gold concentrate and processing ore at a rate of 6Mtpa.

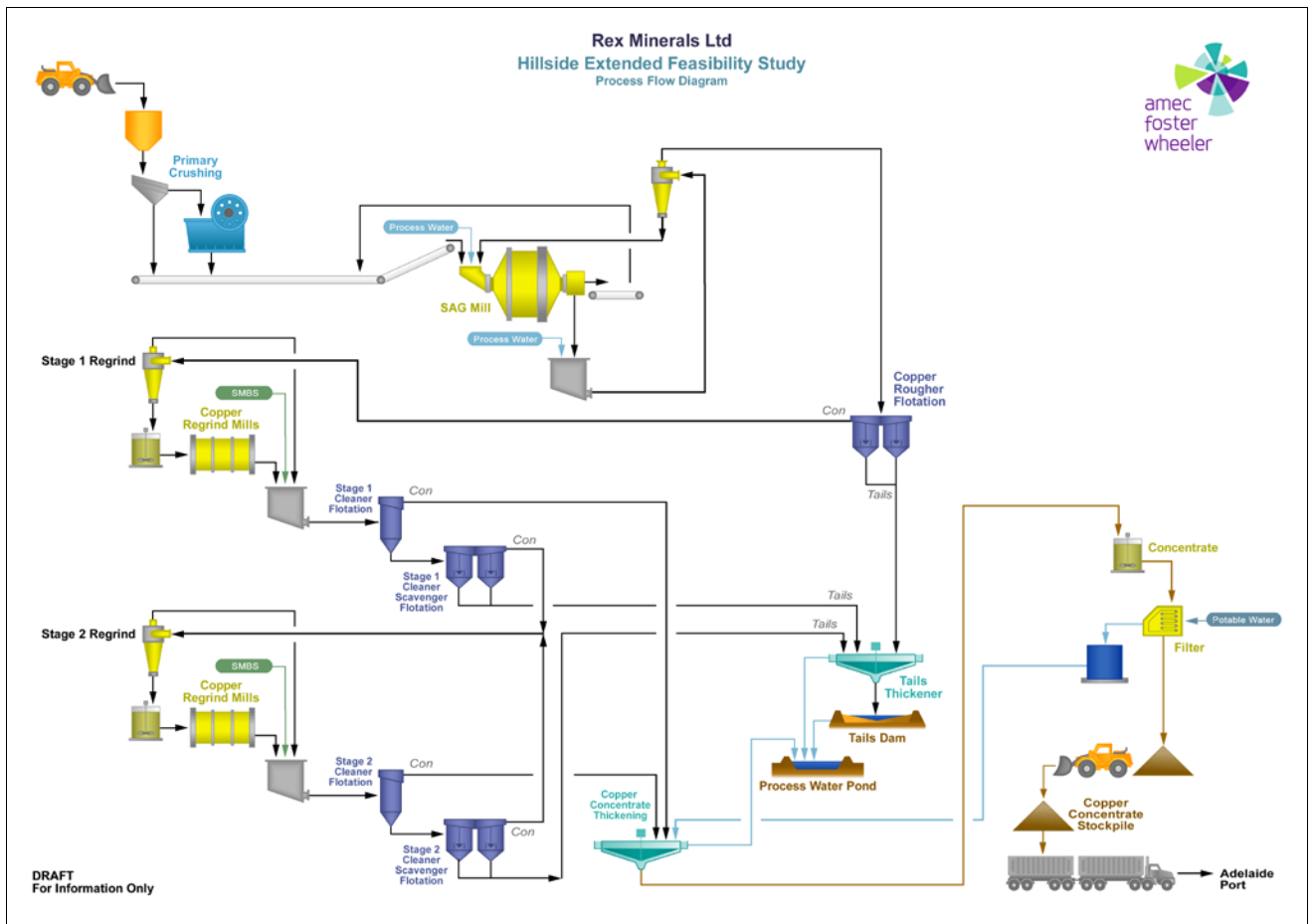
### **Mining**

The mining sequence has been dramatically simplified in comparison to the original Hillside feasibility study scope. After an initial pre-strip of 54Mt, the strip ratio for the operating life is approximately 6.7:1 (waste:ore).

Peak total rock haulage has been reduced from 150Mtpa in the previous plan to 60Mtpa. The new plan focuses on selective mining of narrower ore zones with 250t backhoe excavators to reduce dilution and improve ore recovery. Larger ore zones and waste will be mined with ultra-class 800t hydraulic backhoe excavators, using the double-benching method to reduce cost. This, coupled with the selection of ultra-class (>272t) trucks, has reduced the number of mine trucks from 58 in the original study to a more manageable maximum of 16 in the EFS.

**Processing**

The processing plant has a designed throughput capacity of 6Mtpa. A schematic diagram of the basic design and flowsheet for the processing plant is shown in Figure 1 below, and it includes initial crushing and grinding before a first stage (rougher) flotation. This is followed by a fine grind and second stage (cleaner) flotation, before preparation for transport as a copper-gold concentrate. The average copper-grade of the copper concentrate is over 27% and the average annual copper concentrate produced over the first 12 years of operations is approximately 129,000t. The layout for the processing plant allows for natural expansion capacity to a nominal 12Mtpa and the inclusion of an iron ore recovery circuit.



**Figure 1:** Schematic diagram of the proposed process plant flowsheet.

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### Key Assumptions

Price and exchange rate assumptions for the life of the operation are shown in the table below. Quotes for the pre-production capital cost estimates in the EFS assumed an exchange rate of AUD:USD 0.75. A longer term exchange rate forecast of 0.70 was used for the life of the operation.

**Table 4: Commodity Price and Exchange Rate Assumptions for Hillside EFS**

Commodity and Exchange Rate	Assumptions
Copper (US\$ real)	US\$3.00/lb
Gold (US\$ real)	US\$1,250/oz
Exchange Rate (AUD:USD)	0.70

Unless otherwise stated, all dollar amounts given are in Australian dollars and are not subject to inflation/escalation factors.

For more information about Rex and its projects, please visit our website '[www.rexminerals.com.au](http://www.rexminerals.com.au)' or contact:

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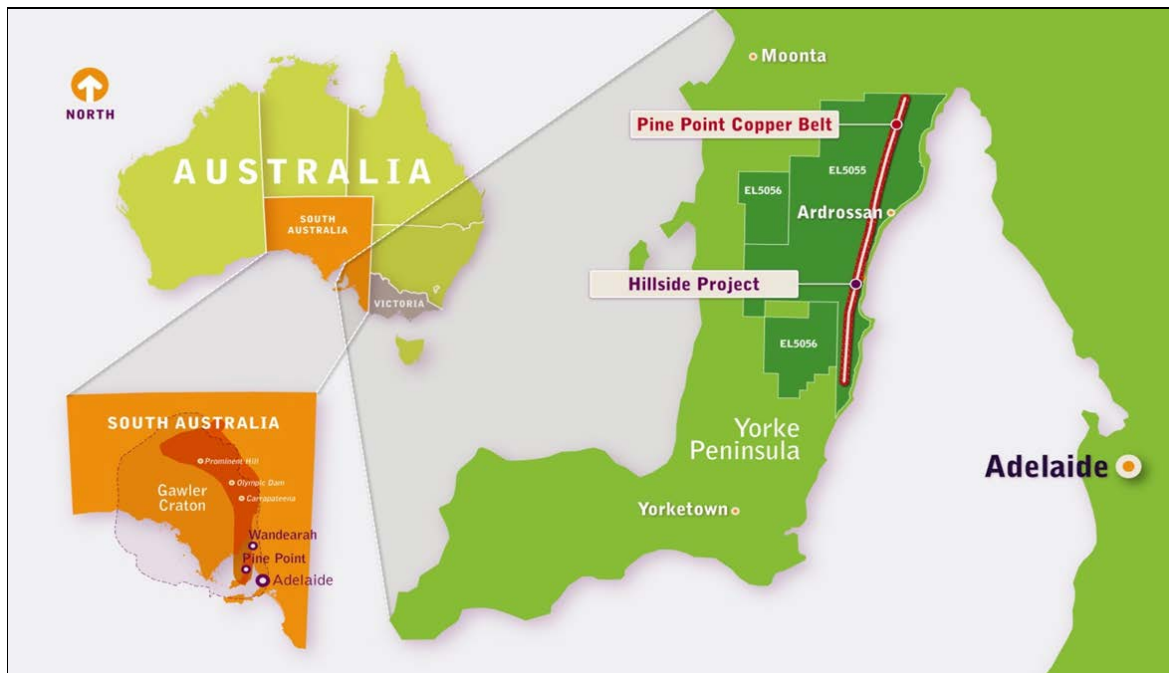
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## Background

The Hillside Project was acquired as part of a large package of exploration licences by Rex Minerals in 2007 on the Yorke Peninsula, South Australia. The Project lies 60km directly west-north-west over the Gulf of St Vincent and is connected to Adelaide by a 150km sealed highway (*Figure 2, below*).



**Figure 2:** Location diagram of the Hillside Project relative to the city of Adelaide and its association with the rocks that host the Olympic Dam polymetallic deposit.

In 2008, numerous large scale copper-gold intersections were identified at Hillside, leading to its discovery and recognition as an IOCG style deposit, of the same generation as the giant Olympic dam polymetallic deposit and Prominent Hill copper-gold deposit. The Hillside discovery not only highlighted the potential of the Hillside deposit, but also the prospectivity of larger exploration licences held by Rex Minerals on the Yorke Peninsula.

In 2011, after extensive drill definition work, Rex Minerals completed a conceptual study which identified the potential for a 7.5Mt operation increasing up to 15Mt which could produce both a copper-gold and iron ore concentrate. This project was advanced further into a Pre-Feasibility Study, which was announced by Rex in late 2012, focusing on the larger scale 15Mt operation producing both a copper-gold and iron ore concentrate. The subsequent work leading into a Feasibility Study continued this focus until August 2014, where a dramatic drop in commodity prices, particularly for iron ore, prompted the Company to change its focus towards an initial copper-gold only project with lower capital investment and higher copper head grades. This work was termed the Extended Feasibility Study (EFS), the results of which are presented in this announcement.

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**Table 5: Hillside Measured, Indicated and Inferred Mineral Resource Summary Table – May 2015**

Zone	Resource Category	Tonnes (Mt)	Copper (%)	Gold (g/t)	Contained Copper (t)	Contained Gold (oz)
Oxide Copper	Measured	16	0.54	0.23	86,400	118,315
	Indicated	4	0.51	0.13	20,400	16,718
	Inferred	0.2	0.7	0.2	1,400	1,286
Secondary Sulphide	Measured	9	0.61	0.20	54,900	57,871
	Indicated	3	0.55	0.12	16,500	11,574
	Inferred	0.1	0.6	0.1	600	322
Primary Sulphide	Measured	47	0.54	0.16	253,800	241,774
	Indicated	144	0.59	0.13	849,600	601,862
	Inferred	114	0.6	0.1	684,000	366,519
<b>Total</b>		<b>337</b>	<b>0.6</b>	<b>0.14</b>	<b>1,967,600</b>	<b>1,416,240</b>

*Copper Resources reported above 0.2% cut-off grade.*

*Measured and Indicated Resources are rounded to two significant figures and Inferred Resources are rounded to one significant figure.*

**Table 6: Hillside Ore Reserve – May 2015**

Category	Tonnes (Mt)	Copper (%)	Gold (g/t)	Contained Copper (t)	Contained Gold (oz)
Proved	42	0.55	0.19	228,049	250,454
Probable	40	0.70	0.14	281,213	181,051
<b>Total</b>	<b>82</b>	<b>0.62</b>	<b>0.16</b>	<b>509,262</b>	<b>431,504</b>

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### **Notes to the announcement**

*The Extended Feasibility Study (EFS) referred to in this announcement is based on the Ore Reserve (derived from Indicated and Measured Resources). There exists a small proportion of oxide resource within the pit shell that has the potential to be converted to an Ore Reserve. The expectation is that a proportion of this oxide copper will be converted to an Ore Reserve once further metallurgical test work is complete.*

### **Forward-Looking Statements**

*This announcement contains “forward-looking statements.” All statements other than those of historical facts included in this announcement are forward-looking statements. Where the Company expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis. However, forward-looking statements are subject to risks, uncertainties and other factors, which could cause actual results to differ materially from future results expressed, projected or implied by such forward-looking statements. Such risks include, but are not limited to, copper and other metals price volatility, currency fluctuations, increased production costs and variances in ore grade or recovery rates from those assumed in mining plans, as well as political and operational risks and governmental regulation and judicial outcomes. The Company does not undertake any obligation to release publicly any revisions to any “forward-looking statement.”*

### **Competent Persons’ Report – Ore Reserves**

*The information in this report that relates to Ore Reserves is based on information compiled by Mr Charles McHugh who is a Member of the Australasian Institute of Mining and Metallurgy and is a consultant to Rex Minerals Ltd. Mr McHugh has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’. Mr McHugh consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.*

### **Competent Persons’ Report– Mineral Resources**

*The information in this report that relates to Exploration Results or Mineral Resources is based on information compiled by Mr Patrick Say who is a Member of the Australasian Institute of Mining and Metallurgy and is a full time employee of Rex Minerals Ltd. Mr Say has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’. Mr Say consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*