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ASX and Media Release: 6 February 2013

**ASX code: RXM** 

# Australia's Largest Open Pit Ore Reserve – Hillside, SA

- Maiden Ore Reserve for the Hillside open pit totalling 120Mt @ 0.53% copper, 0.14g/t gold and 12.8% iron
- Eight year Ore Reserve base with 636,000 tonnes of contained copper
- Further increases to the Ore Reserve expected in late 2013
- Updated Mineral Resource Estimate completed for maiden Ore Reserve (Appendix 1)
- Hillside Bankable Feasibility Study ("BFS") commenced and on track for completion in 2013

Rex Minerals Ltd. ("Rex") is pleased to announce maiden open pit Ore Reserves for its 100% owned Hillside copper project on the Yorke Peninsula, in South Australia. The maiden Ore Reserve has been completed on the back of Rex's recent Pre-feasibility Study ("PFS") announcement (ASX, 31 October 2012) which detailed Australia's largest undeveloped copper project with a 15 year mine plan producing 70,000 tpa of copper (>100,000t CuEq).

The JORC-compliant Ore Reserve released today stands at 120Mt @ 0.53% copper, 0.14g/t gold and 12.8% iron for contained metal of 636,000 tonnes of copper, 540,000 ounces of gold and 14,500,000 tonnes of iron ore. This equates to a copper equivalent grade of 0.77%.

Rex's Managing Director, Mr Mark Parry, said today "The Hillside Reserve is currently Australia's largest open pit copper reserve. Pending a further reserve upgrade by the end of 2013, Hillside is expected to host Australia's largest copper reserves (after Olympic Dam) with over 10 years of mine life in Reserves and over 15 years of production within the life of mine plan."

"With Hillside's maiden Ore Reserve complete, Rex will now shift its focus to the Hillside BFS which we anticipate to be finalised in the second half of 2013. Additionally, as part of the BFS in 2013, Rex will deliver an upgraded Ore Reserve to complement the already substantial Resource base." Mr Parry said.

Table 1: Hillside Ore Reserve – February 2013

Category	Tonnes	Copper	Gold	Iron	Contained	Contained	Contained
	(Mt)	(%)	(g/t)	(%)	Copper (t)	Gold (oz)	Iron ore (t)
Probable	120	0.53	0.14	12.8	636,000	540,000	14,500,000
Total	120	0.53	0.14	12.8	636,000	540,000	14,500,000

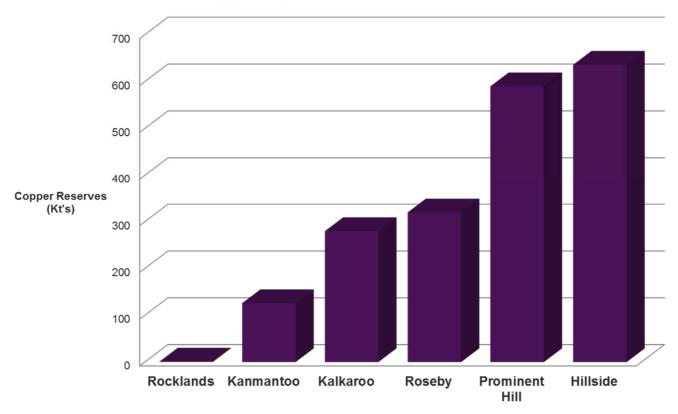
In addition to the recent mining studies that have produced Rex's maiden Ore Reserve, ongoing metallurgical test work as part of the Hillside BFS has produced some improvements to the copper and gold recoveries, with revised metallurgical recoveries of;

- Copper recovery of 88% (compared to 85% in PFS)
- Gold recovery of 84% (compared to 82% in PFS)



Rex has achieved a number of significant project milestones within a short space of time at Hillside. The most recent milestone of a maiden Ore Reserve has delivered a larger Reserve (Figure 1) than any other discovery within Australia in the past decade with the overall Resource capable of a mine plan in excess of 15 years. This places the Hillside project as one of the most significant copper discoveries in Australia. The upcoming key milestones of completing the BFS and securing an effective financing package for the development of Hillside are anticipated to unlock the value of the Hillside project.

# Hillside Ore Reserve in Comparison with other Australian Copper Open Pit Ore Reserves



**Figure 1**: Hillside Ore Reserve in comparison with other Australian Copper Reserves\* based on publically available information as at 30 January 2013.

# **For Comment and Further Details**

For more information about Rex Minerals and its projects please visit our website <a href="www.rexminerals.com.au">www.rexminerals.com.au</a> or contact:

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Phone: 03-5337-4000

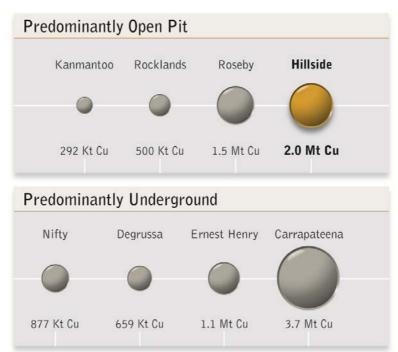
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# **Australian Mineral Resource Comparisons**



**Figure 2**: Hillside Mineral Resource in comparison with other Australian Copper Resources (excluding Olympic Dam).

\*Data based on publicly available information as at 30<sup>th</sup> January 2013

# Hillside Mineral Resource Update - December 2012

An updated Mineral Resource estimate for the Hillside project was completed by Rex on 14 December 2012 and is provided in Table 2. The updated Resource – the fifth in two years - included all drilling results received up to 3 December 2012 inclusive of 504 diamond holes and 234 RC holes for a total of 232,000 metres.

Table 2: Hillside Inferred and Indicated Mineral Resource Summary Table – December 2012

	Resource	Tonnes	Copper	Gold	Iron	Contained	Contained	Contained
Zone	Category	(Mt)	(%)	(g/t)	(%)	Copper (t)	Gold (oz)	Iron ore (t)
Oxide Copper	Indicated	19	0.55	0.21	14.49	104,500	128,281	2,754,509
	Inferred	1	0.5	0.1	14.1	5,000	3,215	139,481
Secondary Sulphide	Indicated	14	0.59	0.20	14.81	82,600	90,022	2,092,737
	Inferred	1	0.7	0.1	11.5	7,000	3,215	102,861
Primary Sulphide	Indicated	129	0.59	0.15	13.83	761,100	622,117	17,502,511
	Inferred	167	0.6	0.1	14.1	1,002,000	536,917	23,293,359
Total		330	0.6	0.15	14.1	1,980,000	1,591,462	46,028,794

Copper Resources reported above 0.2% cut-off grade.

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



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## **About Rex Minerals and the Hillside project:**



area are typically defined using detailed gravity and magnetic surveys.

Rex Minerals is an exploration company focussed on the development of its 100% owned flagship project at Hillside. The Hillside project is situated 12km south of the township of Ardrossan on the Yorke Peninsula, South Australia. The Hillside deposit is a recent discovery hidden by a rock sequence which is approximately 20m thick, covering the copper, gold, and iron ore mineralisation beneath.

The Hillside project is one of many potential large-scale copper-gold projects on the Yorke Peninsula within Rex's 100% owned exploration licences on the Yorke Peninsula. The copper-gold targets in the

The Hillside project and the other copper targets on the Yorke Peninsula have a number of key advantages compared to many other new copper development opportunities around the world. These include:

- ✓ **Infrastructure** The Hillside project is connected by a major highway (within a 2 hour drive) to the city of Adelaide (population 1.2 million).
- ✓ **People and Equipment** The Hillside project has the potential to draw most of the required skilled labour and equipment from Adelaide and the surrounding country towns close to the project.
- ✓ **Power** The area is connected to the State's main power grid.
- ✓ **Port and Town** The Hillside project is 12 kms from the Port and Town of Ardrossan. Ardrossan is a community familiar with mining given that an open cut dolomite mine is nearby and this mine ships its product through the Port.
- ✓ **Freehold Land** Rex has purchased freehold land which covers in excess of 70% of the known and potential copper mineralisation at the Hillside.

Rex's vision is to establish a new large-scale and long life copper mine in South Australia. The combined attributes of a large Resource base and key logistical advantages position Hillside in a unique and financially attractive position compared with other new copper developments across the globe.

#### Competent Persons' Report - Ore Reserves

The information in this report that relates to Ore Reserves is based on information compiled by Mr Colin McVie and Mr John Speck who are Members of the Australasian Institute of Mining and Metallurgy and are full time employees of Mining Plus Pty Ltd. Mr McVie and Mr Speck 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 a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr McVie and Mr Speck consent to the inclusion in the report of the matters based on their information in the form and context in which it appears.



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# 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 2004 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.

### Notes for Copper Equivalent (CuEq) Estimation

CuEq Grade -	Copper price used = 2.80 US\$/lb
Commodity	Gold price used = 1200 US\$/ounce
Prices and	• Iron ore price used = 100 US\$/tonne:
Recoveries	o \$100 equates to the industry benchmark at 62% iron
	<ul> <li>Plus \$25 premium for a concentrate grade of 67% at Hillside</li> </ul>
	Testing has confirmed conventional processing options
	Total Cu grade is used in the CuEq calculation
	Gold recoveries estimated at 84%
	<ul> <li>Iron recoveries estimated at 43% recovered from Fe (from metallurgical test work)</li> </ul>
	• Iron ore concentrate grade = 67%



#### **APPENDIX 1**

#### **Ore Reserve Estimation**

The Ore Reserve estimate was created using DCF methodology within the Whittle Open Pit Optimisation package. Key input parameters including commodity prices and exchange rate for this estimate are shown in Table 3 below. All Ore Reserve tonnes exist within an open pit design that has been fully scheduled and costed in-line with work completed as part of the Hillside pre-feasibility study.

Table 3: Commodity Price and Exchange Rate Assumptions for Hillside Ore Reserve Estimate – February 2013

Commodity	Base Case
Copper (US\$ real)	US\$2.8/lb
Gold (US\$ real)	US\$1,200/oz
Iron Ore (62%Fe) (US\$ real)	US\$100/t
Iron ore premium (US\$ real)	US\$25/t
Exchange Rate (AUD:USD)	0.85

## **Mineral Resource Estimate for Conversion to Ore Reserve**

An updated Mineral Resource estimate for the Hillside project was completed by Rex on 14 December 2012 and is provided in Table 4. The updated Resource – the fifth in two years - included all drilling results received up to 3 December 2012 inclusive of 504 diamond holes and 234 RC holes for a total of 232,000 metres.

Table 4: Hillside Inferred and Indicated Mineral Resource Summary Table – December 2012

Zone	Resource Category	Tonnes (Mt)	Copper (%)	Gold (g/t)	Iron (%)	Contained Copper (t)	Contained Gold (oz)	Contained Iron ore (t)
Oxide Copper	Indicated	19	0.55	0.21	14.49	104,500	128,281	2,754,509
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Drilling was been completed on nominal east-west 50m – 100m sections. Drilling was predominantly concentrated between 6173100N and 6175700N and between 60RL and -650RL. The majority of drilling was completed on nominal east-west sections which intersect the strike of the orebody. Mineralisation was observed from 6173130N to 6175500N, 763150E to 764000E and 60RL to -710RL.

Polygons and hence triangulations were based on interpretations completed on 50m - 100m northing sections. A priority system of 22 domains was set up to account for overlapping mineralisation, intrusive rock shapes and cover sequence lithologies. The block model was constructed with parent blocks of 25mE by 25mN by 12mRL. Ordinary kriging (OK) to the parent block size was used to estimate Cu, Au, Ag, U, Fe, S, Co and Cl grades separately. Up to three estimation passes with increasing search neighbourhood size were run for all domains. A minimum of 4 and maximum of 32 composites were used per estimate for Pass 1 and Pass 2 with a minimum of 1 and maximum of 32 composites used for Pass 3. An Octant based search limited composites to a maximum of 4 composites per octant. 1m assay composites were used. A small number of composites were retained with a length of less than 1m. Estimation applied composite length weighting.

Tonnes were estimated on a dry basis and copper Mineral Resources were reported above a 0.2% Cu block grade cutoff. Approximately 71% of all sampled core was been measured for density. The method used the entire air-dried core sample weighed in air and water, which was used to estimate the density. Ordinary kriging (OK) to the parent block size was used to estimate bulk density. Where blocks were not estimated for bulk density, the average density for the domain was assigned.

Mineral Resources were classified on the basis of geological and grade continuity confidence. Inferred Mineral Resources had an average spacing of up to 150mN by 150mRL whilst Indicated Mineral Resources had an approximate average spacing of up to 50mN by 50mRL.

An audit and review of sampling techniques, data collection, modelling parameters, geostatistical evaluation, block grade creation and grade estimation for Hillside was undertaken by AMC Consultants Pty Ltd in April 2012. No matters were noted that would impair the validity of the Mineral Resource Estimate.