

ASX Release: 30 January, 2013

# **Quarterly Activities Report - for the period ended 31 December 2012**

**ASX Code:** RXM

Shares on Issue: 188.9 million Options on Issue: 6.1 million

Cash on hand as at 31 Dec: A\$47m Market Cap as at 25 Jan: \$130m Share range in quarter: 62c to 94c Website: www.rexminerals.com.au

Continued high grade copper results at Hillside in line with expectations

Pre-feasibility Study (PFS) reveals Australia's largest undeveloped copper project

PFS details a minimum 15 year mine plan producing 70,000 tpa copper (100+kt Cu eq)

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#### **HIGHLIGHTS**

### Pine Point Copper Belt, Yorke Peninsula, South Australia: Hillside Project

- Hillside Pre-feasibility Study (PFS) reveals Australia's largest undeveloped copper project.
- Up to four diamond drill rigs on the Yorke Peninsula and 10,390 metres drilled in quarter.
- Geotechnical drilling program for the Bankable Feasibility Study (BFS) commenced.
- Further shallow and high-grade copper confirmed at Hillside.
- Best results include:
  - o 19m @ 5.8% copper, 4.3 g/t gold and 37% iron (8.5% Cu eq)
  - o 47m @ 1.2% copper, 0.2 g/t gold and 24% iron (1.6% Cu eq)
  - o 12m @ 1.4% copper, 0.1 g/t gold and 12% iron (1.6% Cu eq)
  - o 53m @ 0.9% copper, 0.5 g/t gold and 25% iron (1.5% Cu eq)
  - o 24m @ 0.9% copper, 1.5 g/t gold and 15% iron (1.8% Cu eq)

Note: Intersections are down hole lengths

#### **Regional Exploration Program**

- Low level copper mineralisation identified in diamond drilling along strike from the Hillside deposit
- Completion of district geological interpretation generating further priority exploration target areas

#### **Corporate**

 Mark Parry commenced in the role of Managing Director replacing founding Managing Director Steven Olsen. Steven will continue with Rex as an Executive Director working closely with Mark on the transition of Rex from an explorer into developer and producer.

#### **SUMMARY COMMENTS**

The Hillside PFS (announced 31 October 2012) revealed Australia's largest undeveloped copper project and detailed a production profile of 70,000tpa copper for a period of 15 years or greater. Hillside is now a standout project within the Australian copper sector. Diamond drilling continues beyond the scope of the PFS and is building up the data base required to complete the Bankable Feasibility Study, which is due for completion during the second half of 2013.

#### **OUTLOOK**

Next quarter Rex is expected to release the first Reserve statement for Hillside. Rex will also move immediately into the Bankable Feasibility Study (BFS) with the aim of having a finalised BFS during the second half of 2013.

Rex will commence work next quarter on the pivotal milestones that will enable the start of the development phase at Hillside in 2014. Key milestones for 2013 include, obtaining approvals, completion of the BFS and securing finance.



#### **PROJECTS**

#### Hillside Project - Pre-feasibility Study

Rex announced the results of the PFS for the Hillside deposit during the quarter (31 October 2012), and revealed Australia's largest undeveloped copper project with a production profile of 70,000tpa copper for a period of 15 years or greater. This study also confirmed the economics of a robust and significant copper project. Additionally, the PFS detailed a project with cash costs of US\$1.20/lb after by-product credits, putting Hillside inline with other Australian open pit copper producers.

The PFS highlighted the fact that Hillside has location advantages of port, power, water and near surface ore, which are the ultimate drivers of low capital and operating costs. In an environment where project capital spends are increasing worldwide, Hillside's capital intensity is 30% lower than a recent world average estimate of ~US\$15,000/t of annual copper equivalent production (after Goldman Sachs report, September 2012).

In Summary, the PFS results have the following outcomes and attributes:

	Annual average	Total for 15 years
Project Revenue	~A\$710 million	~A\$11 billion
Estimated operating cash flow before tax (EBITDA)	~A\$240 million	~A\$3.6 billion
Copper production (tonnes)	70,000	1,050,000
Gold production (ounces)	50,000	750,000
Iron ore production (tonnes @ 67% Fe)	1.2 million	18 million
Average cash costs (after by-product credits)	~US\$1.20/lb	
Processing Plant Capacity	15Mt	225Mt

<sup>\*</sup>see page 12 of the PFS ASX Announcement for a summary of commodity and exchange rate assumptions used for the Hillside PFS study

#### Infrastructure

Most of the required capital for the Hillside Project is associated with the building of a large processing plant that has the capacity to treat 15Mt of ore annually. The processing plant will produce a copper-gold concentrate followed by separate components that can further treat the tailings to recover a high quality iron ore concentrate.

#### **Power and Water**

Capital costs at Hillside benefit considerably from its close proximity to infrastructure and ability to access existing key services such as power, water and port facilities. Rex announced recently an agreement with SA Water (4 October 2012) which will ensure that the required fresh water for the Hillside Project will be available in time to commence in 2015. In addition, the PFS has identified multiple options for access to power and port facilities that ensure access to key infrastructure without the need for building new remote facilities. This infrastructure advantage greatly reduces Hillside's capital intensity relative to other undeveloped copper projects across the globe.



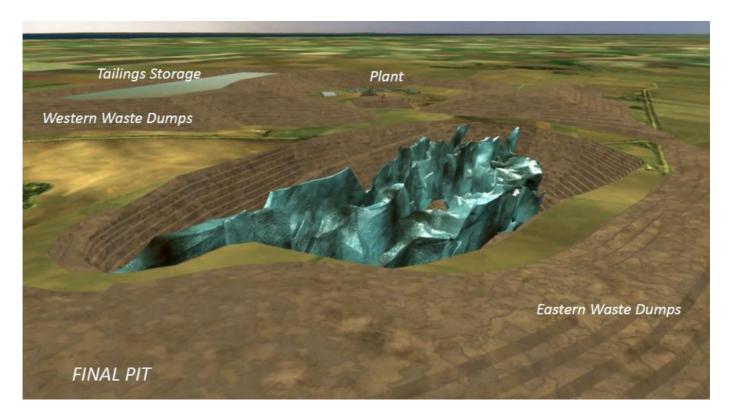
#### **Mining Methods**

Mining Plus was commissioned by Rex to undertake the mining studies associated with the Hillside PFS. The work completed to date by Mining Plus reviewed numerous large scale open pit mining options. In addition, high grade copper identified outside of the open pit design was reviewed for potential underground mining to assess their additional economic value. The Hillside PFS is currently premised on an open pit mine which is supplemented by underground mining. The current life of mine plan converts just over 50% of the available Mineral Resource at Hillside. Depending on forward commodity prices there is an opportunity to optimise the further conversion of the Resource into a mine plan.

#### Open pit mining options

Based on the commodity price assumptions used in the PFS (see page 8) Whittle open pit optimisation work has shown the potential to extend the mine life of an open pit to over 15 years (225+Mt of potential ore).

Rex has commenced a review of the mine plan as part of the BFS, the results of which will be released once complete.

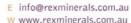


**Figure 1**: Hillside PFS designs of the open pit surrounded by waste dump stockpiles, tailings dam and process plant.



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#### **Mineral Processing**

Rex commissioned AMEC to complete the mineral processing test-work including estimates for the capital required for construction of the processing plant. Extensive mineral recovery work has been carried out by AMEC based on all ore types defined within the Mineral Resource at Hillside and across various grade ranges. This provides a comprehensive view of the average copper, gold and iron ore recoveries that can be realistically achieved at Hillside.

The essential elements of the process plant design utilise conventional flotation technology to produce a copper-gold concentrate. In addition, the tailings from the copper-gold circuit will be treated to recover an iron ore product, which would be sold separately.

The head grades going into the process plant for the LOM are estimated to average 0.54% copper or 0.8%CuEq<sup>2</sup>. Copper recoveries are estimated to be 85% and gold recoveries are estimated to be approximately 82%.

Treatment of the tailings using conventional magnetic separation methods is shown to recover between 1.1 and 1.3Mt of iron ore annually. Of particular significance with the iron ore recoveries is that all ore types gave good quality results, with the iron ore concentrate containing an average grade of 67% iron with low impurities. This is a unique high-quality product, which, due to the close proximity of a port facility can be produced at a cost of less than A\$40/t, making it one of the lowest cost iron ore products in Australia, and well within the bottom quartile of global iron-ore production.

#### **Transport of concentrates**

The Hillside Project's proposed development will produce two concentrates from a 15Mt per annum processing plant situated adjacent to the Hillside open pit mine. The PFS contemplates transport of the copper-gold and iron ore concentrates via a slurry pipeline, which will be only 12km long, from the process plant to the port of Ardrossan. The construction of the slurry pipeline and washing/drying facilities close to the port are included in the estimates for capital required for the project. The option of having a short slurry pipeline to the port brings the benefit of not requiring the use of road or rail transport, and delivers the products to the port at a minimal cost.

#### Pine Point Copper Belt (Yorke Peninsula, South Australia) – Regional Targets

Regional exploration work during the December 2012 quarter focussed on preparation for field exploration in the coming quarter, following completion of seasonal harvesting activities.

#### <u>Diamond Drilling – Hillside Strike Extensions</u>

Assay results were received for the two diamond drill holes completed last quarter, undertaken to provide an initial test of strike extensions to the Hillside deposit. Broad zones of copper anomalism were intersected (eg up to 52m @ 284ppm Cu), confirming the prospectivity of the target areas and the requirement for future drilling to effectively test the Hillside strike extensions.

#### **District Target Generation**

A detailed interpretation of the recently acquired high-resolution magnetic data over Rex's Yorke Peninsula tenure was completed. This interpretation has integrated all available geological information, including recently completed exploration drilling by Rex, with the detailed geophysical data. The interpretation has identified several distinct geological domains and significant structural corridors, and highlighted priority areas for future exploration targeting.



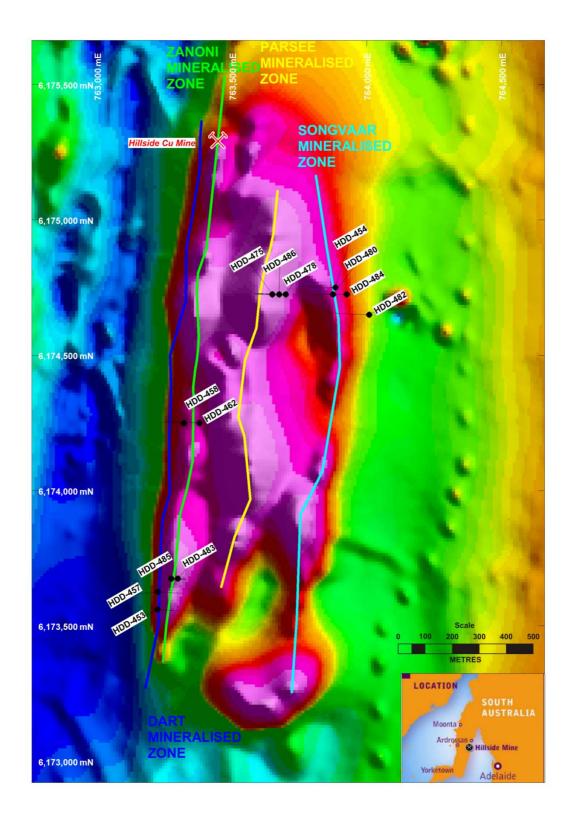
#### **ACTIVITIES PLANNED FOR NEXT QUARTER AND KEY MILESTONES FOR 2013**

<u>Hillside</u>: Rex has four diamond drill rigs currently located at the Hillside project. The drilling will initially be focussed on the geotechnical requirements for the BFS. Following the completion of the geotechnical drilling program, drilling will focus on two programs. The first will be designed to upgrade a proportion of the Inferred Mineral Resource to the Indicated category. The second will be designed to upgrade a proportion of the Indicated Mineral Resource to the Measured category.

<u>Bankable Feasibility Study</u>: Rex has commenced work for the purpose of completing a Bankable Feasibility Study (BFS) at Hillside. The results from the PFS will be used to refine the remaining options and detail required for completion of the BFS. Drilling planned for the next quarter includes additional geotechnical and resource definition drilling.

<u>Pine Point Copper Belt</u>: A program of approximately 2000 soil samples is planned for early in the next quarter, with land access requirements having been fulfilled for the survey. The survey will provide an initial evaluation of several priority target areas, including the historical Yorke Valley copper mine. Results are expected by the end of the next quarter.





**Figure 2**: Magnetic map of the Hillside Project, showing the location of recent drilling. Drill results detailed in Table 1.



**Table 1:** Summarised drilling highlights from results received at Hillside during the December quarter.

Table 1: Sum	Table 1: Summarised drilling highlights from results received at Hillside during the December quarter.							
	FROM						CuEq	
HOLE ID	(m)	TO (m)	INTERVAL (m)	Cu (%)	Au (g/t)	Fe (%)	(%)	Structure
HDD-453	89	101	12	1.4	0.1	12	1.6	Dart (p)
	131	147	16	0.7	0.2	16	1.0	Zanoni (p)
including	138	142	4	1.7	0.7	26	2.4	Zanoni (p)
HDD-454	40	93	53	0.9	0.5	25	1.5	Songvaar (s)
including	43	65	22	1.3	0.4	26	1.8	Songvaar (s)
	104	114	10	-	1.7	46	1.5	Songvaar (s)
HDD-457	115	120	5	1.6	0.1	11	1.8	Zanoni (p)
HDD-458	20	29	9	1.6	0.1	12	1.8	Dart (s)
HDD-462	80	84	4	1.7	0.3	12	2.0	Zanoni (p)
HDD-475	70	94	24	0.9	1.5	15	1.8	Parsee (p)
including	70	<i>78</i>	8	1.8	4.2	18	4.1	Parsee (p)
HDD-478	133	185	52	0.7	0.2	29	1.2	Parsee (p)
including	133	141	8	1.8	0.8	15	2.4	Parsee (p)
	171	180	9	1.3	0.1	32	1.8	Parsee (p)
HDD-480	53	70	17	0.8	0.3	8	1.0	Songvaar (s)
including	54	64	10	1.1	0.5	11	1.5	Songvaar (s)
	98	111	13	0.7	-	7	0.7	Songvaar (s)
								Songvaar
HDD-482	173	225	52	0.7	0.1	20	1.0	(p)
to alcosto a	204	200	0	1.1		17	1.2	Songvaar
including	201	209	8	1.1	-	17	1.3	(p)
1100 400	22	22	44	0.6	0.5	24	4.2	7
HDD-483	22	33	11	0.6	0.5	24	1.2	Zanoni (s)
1100 404		64		0.0	0.5	4.7	1.2	600000000000000000000000000000000000000
HDD-484	47	61	14	0.8	0.5	17	1.3	Songvaar (s)
including	48	55	7	1.0	0.9	16	1.6	Songvaar (s)
	73	122	49	0.7	0.2	16	1.0	Songvaar (p)
				0.7			1.0	Songvaar
including	102	111	9	1.0	0.2	14	1.3	(p)



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HDD-485	77	96	19	5.8	4.3	37	8.5	Zanoni (p)
including	87	93	6	13.1	11	43	19.3	Zanoni (p)
HDD-486	103	150	47	1.2	0.2	24	1.6	Parsee (p)

(p) = Primary Mineralisation Mineralisation (s) = Supergene

#### Notes to the announcement

<sup>1</sup> The results contained within this announcement from the Hillside PFS contain "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".

- <sup>2</sup> CuEq Grade -Commodity Prices and Recoveries:
  - Copper price used = 2.80 US\$/lb
  - Gold price used = 1,200 US\$/ounce
  - Benchmark iron ore price used = 100 US\$/tonne:
    - \$100 equates to the industry benchmark at 62% iron
    - Plus \$25 premium for a concentrate grade of 67% at Hillside
  - Testing has confirmed conventional processing options
  - Total Cu grade is used in the CuEg calculation
  - Gold recoveries estimated at 82%
  - Iron recoveries estimated at 43% recovered from Fe oxides (from metallurgical test work)
  - Iron Oxides grade = Total iron % − % iron with Cu − % iron with pyrite − % iron in non-sulphide gangue.
  - Iron ore concentrate grade = 67%

#### **Competent Persons Report**

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.

<sup>\*</sup> All intercepts reported are down hole unless otherwise specified

Rule 5.3

# Appendix 5B

# Mining exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10

Name of entity

REX MINERALS LTD

ABN

Quarter ended ("current quarter")

12 124 960 523

31 December 2012

### Consolidated statement of cash flows

Cash	flows related to operating activities	Current quarter \$A'ooo	Year to date (6 months)
Cusii	and the control of th	ψ1 0 0 0	\$A'000
1.1	Receipts from product sales and related debtors		
1.2	Payments for (a) exploration & evaluation (b) development (c) production	(10,315)	(21,341)
	(d) administration Dividends received	(1,362)	(2,508)
1.3 1.4	Interest and other items of a similar nature	250	969
1.4	received	350	909
1.5	Interest and other costs of finance paid		
1.6	Income taxes paid		
1.7	Other (provide details if material)		
	Y O I GIF	(11,327)	(22,880)
-	Net Operating Cash Flows		
	Cash flows related to investing activities		
1.8	Payment for purchases of:(a) prospects		
	(b) equity investments		
	(c) other fixed assets	(324)	(356)
1.9	Proceeds from sale of: (a) prospects		
	(b) equity investments		
	(c) other fixed assets	-	-
1.10	Loans to other entities		
1.11	Loans repaid by other entities Other (provide details if material)		
1.12	Other (provide details if material)	(324)	(356)
	Net investing cash flows	(324)	(350)
1.13	Total operating and investing cash flows (carried forward)	(11,651)	(23,236)

<sup>+</sup> See chapter 19 for defined terms.

1.13	Total operating and investing cash flows (brought forward)	(11,651)	(23,236)
1.14 1.15 1.16 1.17 1.18	Cash flows related to financing activities Proceeds from issues of shares, options, etc. Proceeds from sale of forfeited shares Proceeds from borrowings Repayment of borrowings Dividends paid Other (provide details if material)	-	-
	Net financing cash flows	-	-
	Net increase (decrease) in cash held	(11,651)	(23,236)
1.20 1.21	Cash at beginning of quarter/year to date Exchange rate adjustments to item 1.20	58,158	69,743
1.22	Cash at end of quarter	46,507	46,507

Payments to directors of the entity and associates of the directors Payments to related entities of the entity and associates of the related entities

		Current quarter \$A'000
1.23	Aggregate amount of payments to the parties included in item 1.2	756
1.24	Aggregate amount of loans to the parties included in item 1.10	

1.25 Explanation necessary for an understanding of the transactions

Refer to the ASX Release dated 24 September 2012 - Rex appoints new Managing Director for additional amounts included in 1.23

### Non-cash financing and investing activities

Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows							
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2.2 Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest

### Financing facilities available

Add notes as necessary for an understanding of the position.

Amount available	Amount used
\$A'000	\$A'000

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<sup>+</sup> See chapter 19 for defined terms.

3.1	Loan facilities	
3.2	Credit standby arrangements	

# Estimated cash outflows for next quarter

4.1	Exploration and evaluation including Pre-Feasibility studies	\$A 000 10,343
4.2	Development	
4.3	Production	
4.4	Administration	1,469
	Total	11,812

# Reconciliation of cash

show	nciliation of cash at the end of the quarter (as n in the consolidated statement of cash flows) e related items in the accounts is as follows.	Current quarter \$A'000	Previous quarter \$A'000
5.1	Cash on hand and at bank	26,007	58,158
5.2	Deposits at call		
5.3	Bank overdraft		
5.4	Other (Term Deposits)	20,500	-
	Total: cash at end of quarter (item 1.22)	46,507	58,158

# Changes in interests in mining tenements

		Tenement reference	Nature of interest (note (2))	Interest at beginning	Interest at end of
				of quarter	quarter
6.1	Interests in mining tenements relinquished, reduced or lapsed				
6.2	Interests in mining tenements acquired or increased				

<sup>+</sup> See chapter 19 for defined terms.

# **Issued and quoted securities at end of current quarter**Description includes rate of interest and any redemption or conversion rights together with prices and dates.

		Total number	Number quoted	Issue price per security (see note 3) (cents)	Amount paid up per security (see note 3) (cents)
7.1	Preference +securities			<i>3</i> , \ ,	<i>y</i> , ( )
	(description)				
7.2	Changes during				
	quarter				
	(a) Increases				
	through issues				
	(b) Decreases through returns				
	of capital, buy-				
	backs,				
	redemptions				
7.3	<sup>+</sup> Ordinary securities	188,907,284	188,907,284		
	securities				
7.4	Changes during quarter				
	(a) Increases	_	_	_	
	through issues				_
	(b) Decreases				
	through returns				
	of capital, buy-				
	backs				
7.5	<sup>+</sup> Convertible debt				
	securities				
	(description)				
7.6	Changes during				
	quarter				
	(a) Increases				
	through issues				
	(b) Decreases through				
	securities				
	matured,				
	converted				
7.7	Options			Exercise price	Expiry date
	(description and	528,000	-	\$1.222	24/5/2013
	conversion	1,080,000	-	\$3.00	30/4/2014
	factor)	1,480,000	-	\$1.20	30/4/2015
		3,000,000	-	\$0.91	31/8/2017
7.8	Issued during quarter	-	-	-	
7.9	Exercised during quarter	-	-	-	
7.10	Expired during	240,000	-	\$2.052	31/10/2012
	quarter	40,000	-	\$3.00	30/4/2014
		40,000	-	\$1.20	30/4/2015

<sup>+</sup> See chapter 19 for defined terms.

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7.11	<b>Debentures</b> (totals only)	
7.12	Unsecured notes (totals only)	

## Compliance statement

- This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Act or other standards acceptable to ASX (see note 5).
- This statement does give a true and fair view of the matters disclosed.

Sign here: Date: 30 January 2013

(Company secretary)

Print name: Amber Rivamonte

### **Notes**

- The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity wanting to disclose additional information is encouraged to do so, in a note or notes attached to this report.
- The "Nature of interest" (items 6.1 and 6.2) includes options in respect of interests in mining tenements acquired, exercised or lapsed during the reporting period. If the entity is involved in a joint venture agreement and there are conditions precedent which will change its percentage interest in a mining tenement, it should disclose the change of percentage interest and conditions precedent in the list required for items 6.1 and 6.2.
- Issued and quoted securities The issue price and amount paid up is not required in items 7.1 and 7.3 for fully paid securities.
- The definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report.
- Accounting Standards ASX will accept, for example, the use of International Financial Reporting Standards for foreign entities. If the standards used do not address a topic, the Australian standard on that topic (if any) must be complied with.

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<sup>+</sup> See chapter 19 for defined terms.