

QUARTERLY ACTIVITIES REPORT TO 30 SEPTEMBER 2022

CORPORATE

Appointment of Ms Rowena Smith as CEO

This quarter, ASM was pleased to announce the appointment of Ms Rowena Smith as Chief Executive Officer.¹ Before her appointment, Ms Smith had been ASM's Chief Operating Officer. In this capacity, she oversaw the construction and commissioning of the Korean Metals Plant, and led the Dubbo Project team, delivering the Optimisation Study released in December 2021 and negotiating the EPCD contract signed with Hyundai Engineering in June 2022.²

Ms Smith has a deep knowledge of ASM's business and future growth potential, strongly supported by a distinguished career spanning almost 30 years in the mining and minerals processing sector.

Signing of MOU with Korean Development Bank and Chungcheongbuk-do Province

In September, ASM welcomed the opportunity to sign a non-binding Memorandum of Understanding (MoU) with the Korean Development Bank and the Chungcheongbuk-do Province to establish a rare earths global supply chain.³ The MOU provides for cooperation in research and development, investment activities and the development of a rare earths' hub in Chungcheongbuk-do, where ASM's Korean Metals Plant is located. The MoU also indicates the Korean government's continued and expanding support of the development of supply chains where ASM can provide rare earths products.



MOU signing ceremony.

L-R: Sung Lea Cho (KSM), Rowena Smith (ASM), Myung-Kyoo Kim (Chungcheongbuk-do Province), Byung Chul Jung (KDB), Cheol Wan Park (Cheongju-City)

¹ ASX Release: 18 July 2022, *Managing Director and CEO's Transition*

² ASX Release: 9 June 2022, *Hyundai Engineering awarded contract for design work*

³ ASX Release: 23 September 2022, *ASM signs MOU with Korean Development Bank for rare earths supply chain*

KOREAN METALS PLANT

The Korean Metals Plant is an integral part of ASM's mine-to-metals business: producing high-tech metals.

Neodymium Praseodymium

Commissioning for neodymium praseodymium (NdPr) metal and alloy products drew closer to completion this quarter, with positive results achieved.

ASM produced 6.5 tonnes of saleable NdPr metal, confirming our capability to produce NdPr metal. ASM also successfully produced neodymium iron boron (NdFeB) strip metal alloy while commissioning the strip caster. Commissioning of the strip caster will continue in the December quarter and is expected to be completed this calendar year.

In September, ASM signed its first sales agreement for NdPr metal, marking another significant milestone for the Korean Metals Plant. The sales agreement is for 10 tonnes of NdPr metal to NS World, a Korean magnet maker.⁴ One tonne of NdPr metal was delivered to NS World during the quarter, with the remaining tonnes scheduled for delivery in the December quarter.

In other developments, ASM secured the alloy materials needed to produce customer-specific NdFeB product samples and to support potential second-half production.

Commercial in-confidence sales discussions advanced with US and Korean magnet makers seeking to purchase NdFeB alloy from the Korean Metals Plant. ASM advanced commercial-in-confidence discussions to ensure the long-term supply of NdPr feedstock. These discussions have continued into the December quarter.

Once the Phase 1 NdFeB commissioning is complete, nameplate capacity for NdFeB production will be 600 tpa. Actual production volumes will depend upon customer demand and the completion of sales agreements. Phase 2 expansion beyond 600 tpa to 3,600 tpa will occur when ASM is satisfied there is adequate customer demand to underpin an expanded facility.



Neodymium iron boron (NdFeB) strip caster and product at the Korean Metals Plant

⁴ ASX Release: 8 September 2022, *First sale of Neodymium Praseodymium metal from Korean Metals Plant*

Titanium and LK Process

Commercial scale commissioning and process development of ASM's innovative metallisation technology (the LK Process) continued throughout the quarter, with positive results achieved in producing copper titanium alloy.

ASM successfully produced 466 kg of copper titanium (CuTi) ingot using the LK Process. The Korean Institute of Industrial Technology (KITECH) assessed CuTi alloy produced using the LK Process and confirmed it was within defined specifications.

The LK Process is based on the technology ASM purchased in the Ziron Tech acquisition.⁵ The LK Process produces high-grade metal alloys without the need for chlorination, thus reducing the subsequent chlorine gas hazards. This is an alternative to the Kroll Process for production of titanium, zirconium and hafnium metals.

The LK Process is also an alternative to the traditional production methods for dysprosium and terbium metals. There are potential synergies to add further value to zirconium, hafnium, dysprosium and terbium oxides produced at Dubbo Project. These opportunities will continue to be explored over the calendar year 2023.

Using the LK Process, the nameplate capacity of the titanium furnace to produce CuTi is 1,600 tpa. ASM will ramp up production to 1,600 tpa when satisfied adequate customer demand exists to underpin production.

ASM expects to progress commercial in-confidence discussions to sell titanium products to US, Korean and Japanese customers in the 2023 calendar year.



⁵ ASX Release: 3 November 2020, *ASM Completes Acquisition of Ziron Tech*

KMP Targets

The Korean Metals Plant is at break even for NdFeB production, when operating at 600 tpa NdFeB production.

The table below shows forecast targets at Phase 2, if total production capacity reaches 5,200 tpa.

Korean Metals Plant – 5,200tpa Summary	
Production	
NdFeB alloy	3,600 tpa
CuTi alloy	1,600 tpa
Total Production Capacity	5,200 tpa
Financial	
Annual Revenue	USD 270 m
Annual EBITDA	USD 40 m

Assumptions

- Final Production mix, revenue and EBITDA are estimates only and will be subject to customer demand and could include Nd, NdPr, CuTi and NiTi metals, NdFeB alloy or Ti powder.
- Reliable published benchmark data for KMP end products is not available. Raw materials and sales price assumptions are based on key raw material inputs from Argus (5 May 2022) and Adamas (April 2022) and ASM's assessment of achievable sales pricing. This remains uncertain until customer sales contracts are secured.

Key Risks

The Company's ability to successfully commercialise the Korean Metals Plant may be affected by numerous project risk factors including but not limited to: its ability to secure raw materials and customer offtakes, delays in commissioning or ramp-up, the plant not performing in accordance with expectations and costs overruns. If the Company is unable to manage these factors, this could result in the Company being unable to realise the Korean Metals Plant's full potential.

DUBBO PROJECT

The Dubbo Project is integral to ASM's mine-to-metals business, for the supply of rare earths and critical minerals.

EPCD Contract Update

Under the terms of the EPC Definition (EPCD) contract signed with Hyundai Engineering Corporation Co., Ltd (HEC) in June 2022,⁶ ASM must issue HEC a Notice to Proceed for work to commence. This quarter, ASM did not issue the Notice to Proceed. However, ASM and HEC met multiple times to enable a seamless kick-off once issued.

Project Suppliers

ASM continued to work with vendors and consultants to ensure project compliance with Australian Industry Participation requirements and vendor availability. As part of this work, key operational consumable investigation work was completed on the supply options for lime & limestone.

ANSTO collaboration

This quarter, in partnership with ANSTO, ASM:

- Finalised work relating to the Roast-CDD-Zr Precipitation pilot plant and the DHZ pilot plant operation;
- Planned the Tb/Dy solvent extraction pilot plant program; and
- Progressed the metallurgical simulation modelling for finalisation of the mass and energy balance before commencement of FEED.

ASM also collaborated with ANSTO to produce sample analysis for products representative of the current flowsheet. These were to support marketing engagement with interested product off-take customers. The samples produced included:

- Zirconium Basic Sulphate (ZBS);
- Zirconia (ZrO₂), produced from ZBS;
- Dehafniated Zirconia (DHZ), produced from Dehafniated Zirconium Hydroxide; and
- Hafnia (HfO₂), produced from Hafnium Oxychloride.

The samples were assayed by a third party (Bureau Veritas) to provide independent analysis. A larger sample production program to provide actual samples to customers will commence in January 2023.

⁶ ASX Release: 9 June 2022, *Hyundai Engineering Co., Ltd. awarded conditional contract for design work for the Dubbo Project*

Port of Newcastle identified as preferred port location

ASM has identified the Port of Newcastle as the preferred port location for development of a portside services facility to support the Dubbo Project's logistical requirements for import of reagent supplies. The Port of Newcastle has agreed to investigate development of suitable infrastructure to support these requirements. Infrastructure options for consideration include port-side off loading, storage facilities and a train loading facility.

To support these endeavours, ASM signed a non-binding Memorandum of Understanding (MOU) with the Port of Newcastle in October. The MOU will remain in effect until December 2023.

Modification report public submissions

The public exhibition period for the Modification Report (MOD1) closed on 19 April 2022. The MOD1 reflected several Dubbo Project design improvements resulting from the Optimisation Study completed in December 2021.

ASM responded to submissions received during the exhibition period, lodging a Response to Submissions with the NSW Department of Planning and Environment. ASM expects a determination from the Department in the December quarter.

Project finance

To develop the Dubbo Project, ASM is targeting a project financing funding strategy based on a mix of equity, supported by offtakes and debt, supported by Australian and Korean export credit finance.

During the quarter, ASM continued discussions with potential offtake and equity partners regarding potential collaboration and investment in the Dubbo Project. These parties included global industrial conglomerates, Australian, Korean and other government agencies, product end-users, engineering companies and financial investors.

ASM continued to work with KCF Energy Co. Ltd (KCF) after receiving USD 15 million in the previous quarter.⁷ The Revised Framework Agreement between ASM and KCF remains valid, and the parties met during the period to discuss opportunities for KCF to assist ASM to grow its businesses in Australia and Korea.

During the quarter, ASM continued discussion with potential debt providers regarding potential provision of project finance. These parties included Australian and Korean government funding agencies and Australian, Korean, and global project finance banks.

⁷ ASX Release: 16 May 2022, *USD 15 million Subscription Agreement at AUD8.90 per ASM share*

SALES AND MARKETING

This quarter has seen increased interest in both Dubbo and Korean Metals Plant products, as governments and market participants alike are ramping up efforts to diversify their critical minerals sourcing and supply chain strategies. In particular, concerns over the concentration of supply for magnetic rare earths and zirconia related materials has led to greater engagement with potential customers.

While the outlook for the global economy has weakened in the last quarter, the markets for rare earth and magnet related materials remains encouragingly strong. In addition, there appears to be growing interest in hafnia related end use applications, while demand for titanium from high-end downstream industries, such as aerospace and ocean engineering, is incentivising non-Russian capacity expansions.

To progress sales and offtake agreements, ASM exchanged technical data (including specifications) and the pathway to qualify products from both the Korean Metals Plant and Dubbo Project. Several face-to-face meetings were also held at industry conferences in Asia, Europe and the US with prospective Korean, Japanese, European and US customers. These discussions included potential sales contracts and offtake agreements from both operations.

In addition to the first sale of NdPr metal, ASM is also involved in advanced negotiations with a US counterpart in relation to the supply of NdFeB strip alloy (for use in permanent magnets).

A wide range of negotiations are expected to continue through the December quarter, with material progress expected on potential sales contracts and offtake agreements.



First sale and delivery of NdPr metal from the Korean Metals Plant to NS World

COMMUNITY

ASM is committed to establishing strong and positive relationships with the communities where we operate. We want to work together to build resilient communities and return a positive, lasting legacy.

Macquarie Agricultural Pathways Program

Following the announcement of our partnership with Macquarie Anglican Grammar School for the Macquarie Agricultural Pathways Program, ASM was delighted to attend the official program launch in July.

COVID-19

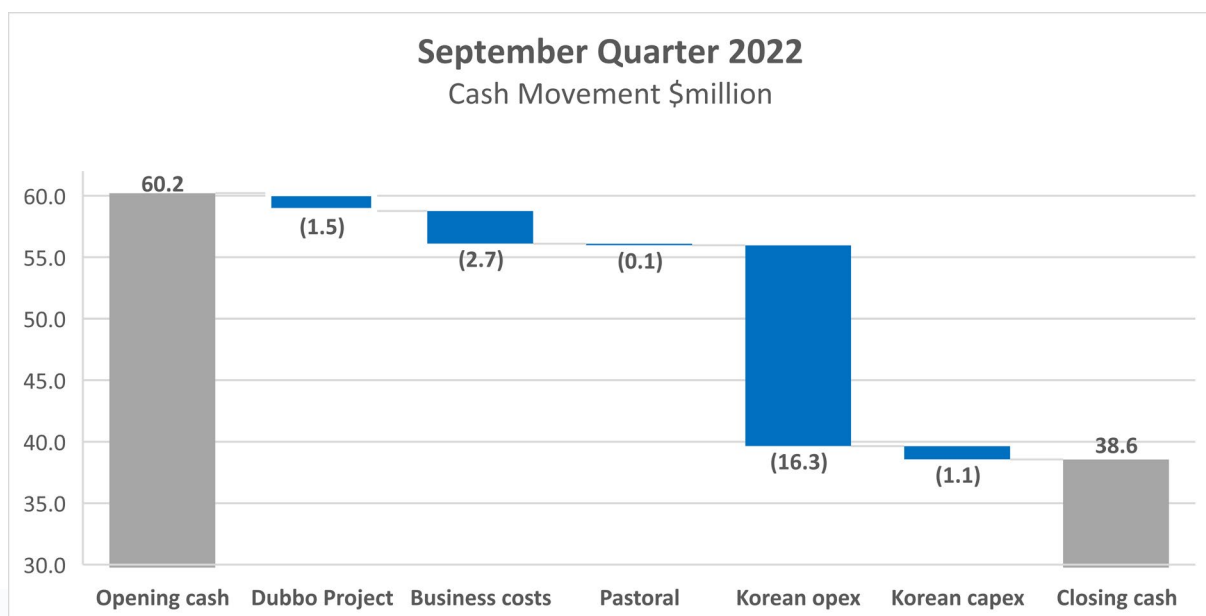
Throughout the quarter, ASM continued to observe COVID-19 management protocols across our office and site locations in Australia and South Korea. These protocols are in line with our commitment to ensure safe operations for our staff and contractors.

FINANCE

Cash

ASM's cash position as at 30 September 2022 was \$38.6M. The following waterfall chart highlights cash movements during the quarter including:

- \$1.5M of investment in the Dubbo Project, including the purchase of engineering and metallurgical services.
- \$2.7M of business costs relating to administration and business development.
- \$16.3M of Korean expenditure, principally relating to inventory feed stock for the Korean Metals Plant, along with administrative and personnel costs which were offset by sales of surplus feed stock.
- \$1.1M of investment in the Korean Metals Plant, including the purchase of equipment and machinery.



Banking Facilities

During the quarter ended 30 June 2022, the Group executed two loan facilities totalling ₩22 billion Korean Won with Korea Development Bank and drew down ₩15 billion on the industrial operating expense facility, which is repayable on or before 10 June 2024 in one bullet repayment.

At 30 September, the Group had bank debt totalling ₩15 billion (A\$16.1m), with ₩7 billion (A\$7.5m) remaining in undrawn facilities, please refer to item 7 in Appendix 5B for further details.

MINING TENEMENTS

Australian Strategic Materials Limited confirms the following information as of 30 September 2022 (as required by ASX Listing Rule 5.3.3).

Tenements	Mining tenements acquired during the quarter	Mining tenements disposed of during the quarter	Mining tenements held at the end of the quarter	Tenement location
EL 5548	N/A	N/A	100%	Dubbo NSW
EL 7631	N/A	N/A	100%	Dubbo NSW
ML 1724	N/A	N/A	100%	Dubbo NSW

No exploration or other mining activities have occurred for the quarter (as required by ASX Listing Rule 5.3.1).

APPENDIX 5B

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity	
Australian Strategic Materials Ltd	
ABN	Quarter ended ("current quarter")
90 168 368 401	30 September 2022

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (3 months) \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) exploration & evaluation	-	-
(b) development	-	-
(c) production	(18,441)	(18,441)
(d) staff costs	(2,616)	(2,616)
(e) administration and corporate costs	(1,379)	(1,379)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	44	44
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	-
1.8 Other (provide details if material)	2,206	2,206
<i>Cash received from pastoral activities and sale of surplus feed stock at the Korean Metals Plant.</i>		
1.9 Net cash from / (used in) operating activities	(20,186)	(20,186)

1.2(c) Production costs include inventory purchased for the Korean Metallisation Plant.

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
2.	Cash flows from investing activities		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	(1,079)	(1,079)
	(d) exploration & evaluation (Dubbo Project)	(1,456)	(1,456)
	(e) investments	-	-
	(f) other non-current assets	(144)	(144)
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material) <i>Cash received from government grants.</i>	521	521
2.6	Net cash from / (used in) investing activities	(2,158)	(2,158)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)*	-	-
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	-
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
3.9	Other (provide details if material)	-	-
3.10	Net cash from / (used in) financing activities	-	-

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	60,220	60,220
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(20,186)	(20,186)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(2,158)	(2,158)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	-
4.5	Effect of movement in exchange rates on cash held	682	682
4.6	Cash and cash equivalents at end of period	38,558	38,558
5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	23,558	23,558
5.2	Call deposits	15,000	15,000
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	38,558	38,558

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000																													
6.1	Aggregate amount of payments to related parties and their associates included in item 1	653																													
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-																													
<p><i>During the quarter ended 30 September 2022, item 6.1 cash payments totalled \$653,000. These payments included Director's fees, travel, consulting, and superannuation. Other related parties' payments included former Managing Director termination payment comprising of salary, notice and annual leave of \$397,000 and \$81,000 paid to Alkane Resources Limited for personnel and office services.</i></p>																															
7.	Financing facilities <i>Note: the term "facility" includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.</i>	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000																												
7.1	Loan facilities	16,135	16,135																												
7.2	Credit standby arrangements	-	-																												
7.3	Other (please specify)	-	-																												
7.4	Total financing facilities	-	-																												
7.5	Unused financing facilities available at quarter end	7,530																													
7.6	<p>Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.</p> <p><i>The Group holds two Korean Won (₩) loan facilities with Korea Development Bank in South Korea. Firstly, an Industrial Facility for operating and capital expenditure and secondly an Overdraft Facility for the Korean Metals Plant. Details of each facility is outlined below:</i></p> <table border="1"> <thead> <tr> <th></th> <th>Industrial Facility - Opex</th> <th>Industrial Facility - Capex</th> <th>Overdraft Facility</th> </tr> </thead> <tbody> <tr> <td>Facility amount</td> <td>₩ 15,000,000,000</td> <td>₩ 4,000,000,000</td> <td>₩ 3,000,000,000</td> </tr> <tr> <td>Amount drawn</td> <td>₩ 15,000,000,000</td> <td>Undrawn</td> <td>Undrawn</td> </tr> <tr> <td>Repayment date</td> <td>10 June 2024</td> <td>Quarterly repayments for 5 years commencing from date of loan draw down.</td> <td>2 years from date of loan draw down.</td> </tr> <tr> <td>Lender</td> <td>KDB Bank</td> <td>KDB Bank</td> <td>KDB Bank</td> </tr> <tr> <td>Interest</td> <td>4.23% KDB 2-year industrial financial debenture rate (on date of transfer) + 1.05% pa.</td> <td>KDB 5-year industrial financial debenture rate (on date of transfer) + 0.68% pa.</td> <td>KDB overdraft base rate + 1.06% per annum</td> </tr> <tr> <td>Security</td> <td>Unsecured</td> <td>Secured</td> <td>Unsecured</td> </tr> </tbody> </table>				Industrial Facility - Opex	Industrial Facility - Capex	Overdraft Facility	Facility amount	₩ 15,000,000,000	₩ 4,000,000,000	₩ 3,000,000,000	Amount drawn	₩ 15,000,000,000	Undrawn	Undrawn	Repayment date	10 June 2024	Quarterly repayments for 5 years commencing from date of loan draw down.	2 years from date of loan draw down.	Lender	KDB Bank	KDB Bank	KDB Bank	Interest	4.23% KDB 2-year industrial financial debenture rate (on date of transfer) + 1.05% pa.	KDB 5-year industrial financial debenture rate (on date of transfer) + 0.68% pa.	KDB overdraft base rate + 1.06% per annum	Security	Unsecured	Secured	Unsecured
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Security	Unsecured	Secured	Unsecured																												

8. Estimated cash available for future operating activities	\$A'000
8.1 Net cash from / (used in) operating activities (item 1.9)	(20,186)
8.2 (Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(1,456)
8.3 Total relevant outgoings (item 8.1 + item 8.2)	(21,642)
8.4 Cash and cash equivalents at quarter end (item 4.6)	38,558
8.5 Unused finance facilities available at quarter end (item 7.5)	7,530
8.6 Total available funding (item 8.4 + item 8.5)	46,088
8.7 Estimated quarters of funding available (item 8.6 divided by item 8.3)	2.1
<i>Note: if the entity has reported positive relevant outgoings (i.e. a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.</i>	
8.8 If item 8.7 is less than 2 quarters, please provide answers to the following questions:	
8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
Answer: N/A	
8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?	
Answer: N/A	
8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?	
Answer: N/A	
<i>Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.</i>	

Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 25 October 2022

Authorised by: The Board of Directors

(Name of body or officer authorising release – see note 4)

Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, 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. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [*name of board committee – eg Audit and Risk Committee*]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.