

**QUAY MAGNESIUM LIMITED**  
**ABN 75 104 179 099**

**INDEPENDENT EXPERT'S REPORT**

On the proposed issue of shares and options to  
Clever Talent Group Limited

**Prepared by**

**WHK Horwath Corporate Finance Limited**

**14 October 2010**

14 October 2010

The Directors  
Quay Magnesium Limited  
3 Spring Street  
SYDNEY NSW 2113

Dear Sirs,

## INDEPENDENT EXPERT'S REPORT

### 1 Introduction

On 13 September 2010, Quay Magnesium Limited ("**Quay Magnesium**" or the "**Company**") announced that it had entered into a Subscription Agreement with Clever Talent Group Limited ("**Clever Talent Group**") whereby Quay Magnesium would issue to Clever Talent Group:

- 125 million shares at 1.6 cents per share ("**Proposed Share Issue**"); and
- 125 million call options at no cost, exercisable at 3 cents per share ("**Proposed Option Issue**").

(collectively referred to as the "**Proposed Transaction**").

If approved, the Proposed Transaction will:

- raise \$2 million in working capital funding for Quay Magnesium;
- increase the relevant interest held by Mr Kai Fan from 18.58% to 42.45% on an undiluted basis<sup>1</sup>, or 55.49% on a diluted basis<sup>2</sup>; and
- give Clever Talent Group the power to appoint three out of a total of five Directors to the Board of Quay Magnesium.

The Proposed Transaction is subject to shareholder approval at the Annual General Meeting ("**AGM**") to be held on 26 November 2010. Shareholders will vote on the Proposed Share Issue and the Proposed Option issue together. For the avoidance of doubt, either both the Proposed Share Issue and the Proposed Option Issue will be approved, or neither will be approved. Shareholders will not vote on the two issues separately.

The terms of the Proposed Transaction are set out in the accompanying Explanatory Memorandum of which this Report forms part.

<sup>1</sup> Undiluted basis – based on the Proposed Share Issue only

<sup>2</sup> Diluted basis – assuming shares are issued pursuant to the exercise of options issued under the Proposed Option Issue

Quay Magnesium is an Australian owned publicly listed company with an alloying production plant in Nanjing, China. Quay Magnesium produces a range of high performance magnesium alloys that are targeted for use by die casting customers in the automotive and electronics industries.

Clever Talent Group is a special purpose vehicle incorporated in the British Virgin Islands which is owned 100% by Mr Fan. Central Turbo Limited ("**Central Turbo**") is the largest current shareholder in Quay Magnesium, holding 18.58% of the current shares on issue. Central Turbo is jointly owned by Mr Fan and his wife, Yan Wang.

The Directors of Quay Magnesium have requested that WHK Horwath Corporate Finance Limited ("**WHK Horwath Corporate Finance**") provide an Independent Expert's Report in relation to the Proposed Transaction, indicating whether in our opinion the issue of shares and future exercise of the options is fair and reasonable for the shareholders who are not a party, nor an associate of a party to the Proposed Transaction (the "**non-associated shareholders**") of Quay Magnesium pursuant to the requirements of Section 611 of the Corporations Act 2001 (Cth) ("**Corporations Act**" or the "**Act**"), Australian Securities Exchange ("**ASX**") Listing Rule 7.1 and Australian Securities & Investment Commission ("**ASIC**") Regulatory Guide 74.

WHK Horwath Corporate Finance is independent of Quay Magnesium and has no involvement with, or interest in, the outcome of the Proposed Transaction other than the preparation of this Report.

## **2 Summary Conclusion**

### **2.1 The Proposed Transaction is Fair and Reasonable for the non-associated shareholders**

The Proposed Transaction is fair and reasonable for the non-associated shareholders of Quay Magnesium. The reasons for our opinion are summarised below.

### **2.2 The Proposed Transaction is Fair for the non-associated shareholders**

For the purpose of assessing the fairness of the Proposed Transaction to the non-associated shareholders of Quay Magnesium, we compared the value of Quay Magnesium shares before and after the Proposed Transaction.

Specifically, we assessed the value of Quay Magnesium shares under three scenarios, being:

- **Scenario 1:** the value of Quay Magnesium shares on a controlling basis if the Proposed Transaction does not proceed;
- **Scenario 2:** the value of Quay Magnesium shares on a minority basis if the Proposed Transaction does proceed and the options issued to Clever Talent Group are not exercised; and
- **Scenario 3:** the value of Quay Magnesium shares on a minority basis if the Proposed Transaction does proceed and the options issued to Clever Talent Group are exercised.

Since the assessed value per share of Quay Magnesium if the Proposed Transaction does proceed, under both Scenario 2 and Scenario 3, is greater than the assessed value per share of Quay Magnesium if the Proposed Transaction does not proceed (Scenario 1), we have assessed the Proposed Transaction to be fair for the non-associated shareholders of Quay Magnesium, as summarised below.

Quay Magnesium Fairness Assessment		
<b>Comparison of Scenario 1 to Scenario 2</b>	<b>Low</b>	<b>High</b>
Value per share if the Proposed Transaction does not proceed	nil	nominal
Value per share if the Proposed Transaction does proceed and the options are not exercised	1.288	2.043
<b>Assessment</b>	<b>Fair</b>	<b>Fair</b>
<b>Comparison of Scenario 1 to Scenario 3</b>	<b>Low</b>	<b>High</b>
Value per share if the Proposed Transaction does not proceed	nil	nominal
Value per share if the Proposed Transaction does proceed and the options are exercised	1.601	2.655
<b>Assessment</b>	<b>Fair</b>	<b>Fair</b>

## 2.3 The Proposed Transaction is Reasonable for the non-associated shareholders

After considering that the Proposed Transaction is fair for the non-associated shareholders, and after considering the advantages and disadvantages of the Proposed Transaction to the non-associated shareholders, we are of the opinion that the Proposed Transaction is reasonable for the non-associated shareholders of Quay Magnesium. The advantages and disadvantages of the Proposed Transaction are set out in Section 10.4.1 and 10.4.2 of this Report and are summarised below.

### 2.3.1 Advantages to non-associated shareholders from the Proposed Transaction

The primary advantages to the non-associated shareholders of Quay Magnesium in proceeding with the Proposed Transaction are as follows:

- Immediate access to working capital;
- Ability to continue operating as a going concern;
- Potential access to future funding;
- Ability to continue pursuing a reliable source of feedstock with parties associated with Mr Fan;
- Ability to pursue a reliable source of feedstock with other parties;
- Potential strategic operational benefits associated with Mr Fan;
- There are no viable present alternatives;
- Unlikely to raise additional funding should the Proposed Transaction not proceed;
- The Directors of Quay Magnesium intend to vote in favour of the Proposed Transaction;
- The Proposed Transaction has been negotiated on arm's length terms; and
- Lower expected share price if the Proposed Transaction does not proceed.

### **2.3.2 Disadvantages to non-associated shareholders from the Proposed Transaction**

The primary disadvantages to the non-associated shareholders of Quay Magnesium in proceeding with the Proposed Transaction are as follows:

- Need for further capital;
- Introduction of a controlling shareholder;
- Non-associated shareholders may expect a superior alternate offer will emerge;
- Dilution of interests of non-associated shareholders;
- Shareholders may believe that Quay Magnesium shares will trade at a higher price within the foreseeable future;
- Lead time associated with positive outcomes from acquisitions; and
- Mr Fan will become the controlling shareholder of Quay Magnesium and is also associated with the Chinese Group that Quay Magnesium is attempting to acquire.

### **3 Other**

This letter is a summary of WHK Horwath Corporate Finance's opinion on the Proposed Transaction. This letter should be read in conjunction with the detailed Report and appendices as attached. Unless the context requires otherwise, references to "we", "our" and similar terms refer to WHK Horwath Corporate Finance.

Yours faithfully

**WHK HORWATH CORPORATE FINANCE LIMITED**



*WHK Horwath Corporate Finance*

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## 4 Details of the Proposed Transaction

### 4.1 Background

Quay Magnesium has a history of loss making and has required continued financial support since listing on the ASX in September 2004.

Central Turbo, a company jointly owned by Mr Fan and Ms Wang, has injected \$970,000 of cash into Quay Magnesium since August 2009. The funds provided working capital finance and enabled Quay Magnesium to explore potential acquisitions of feedstock businesses in China. The objective of this strategy was to lock in supply in order to increase throughput and reduce price volatility. As set out in ASX announcements and the Chairman's letter contained in Quay Magnesium's Annual Report, these opportunities did not meet legal due diligence and were put on hold until such time that the potential targets can demonstrate that they do.

Quay Magnesium currently requires additional funding in order to continue operations. The notes to the financial statements contained in Quay Magnesium's Annual Report for the year ended 30 June 2010 state that:

*"Without an equity raising, further external finance and the achievement of positive cash flow of the Nanjing operation there is significant uncertainty whether the consolidated entity will be able to continue as a going concern."*

### 4.2 Proposed Transaction

On 13 September 2010, Quay Magnesium announced that it had entered into a Subscription Agreement with Clever Talent Group, a company owned 100% by Mr Fan, whereby Quay Magnesium would issue to Clever Talent Group:

- 125 million shares at 1.6 cents per share; and
- 125 million call options at no cost, exercisable at 3 cents per share.

The impact of the proposed issues are summarised in the table below:

<b>Quay Magnesium Capitalisation Table</b>	
	<b>Shares Outstanding</b>
Current shares outstanding	301,423,134
Placement of shares under Proposed Transaction	125,000,000
<b>Shares outstanding post transaction - undiluted basis</b>	<b>426,423,134</b>
Issue of shares if options are exercised	125,000,000
<b>Shares outstanding post transaction - diluted basis</b>	<b>551,423,134</b>

If approved, the Proposed Transaction will:

- raise \$2 million in working capital funding for Quay Magnesium;
- increase the relevant interest held by Mr Fan from 18.58% to 42.45% on an undiluted basis, or 55.49% on a diluted basis; and
- provide Clever Talent Group the right to appoint three out of a total of five Directors to the Board of Quay Magnesium.

#### 4.3 Shareholder Approval

The Proposed Transaction is subject to shareholder approval at the AGM to be held on 26 November 2010.

Shareholders will vote on the Proposed Share Issue and the Proposed Option issue together. For the avoidance of doubt, either both the Proposed Share Issue and the Proposed Option Issue will be approved, or neither will be approved. Shareholders will not vote on the two issues separately.

#### 4.4 Conditions Precedent

Other than shareholder approval, the only condition precedent to the Proposed Transaction is that Quay Magnesium has confirmed to Clever Talent Group that it is in a position to give to the ASX a notice under Section 708A(5)(e) of the Corporations Act on the Completion Date without the need to prepare a Prospectus or other Public Disclosure Document.

#### 4.5 Intentions of Clever Talent Group

In accordance with the Notice of Meeting, Clever Talent Group has the following intentions with respect to the Quay Magnesium should the Proposed Transaction proceed:

- **Vertical integration<sup>3</sup>:** discussions between Clever Talent Group and Quay Magnesium have commenced with respect to the vertical integration of Quay Magnesium's business via buying a pure magnesium plant (or an interest in several pure magnesium plants), including the possibility of acquiring an interest in a plant owned by Mr Fan and his associates;
- **Capital injections:** Clever Talent Group has no present intention to inject further capital into the Company in its current state, however, the acquisition of a share in one or more pure magnesium plants would require additional and potentially significantly larger capital and/or debt injections;
- **Employees:** Clever Talent Group proposed no changes to the future employment of the present employees at this time;
- **Deployment of assets:** Clever Talent Group has no present intention to redeploy the fixed assets of Quay Magnesium; and
- **Funding structure, dividends & distributions:** Clever Talent Group has no present intention to materially change the financial or dividend policies of the Company, noting however, that should an acquisition of an interest in a pure magnesium plant occur, it is intended that such an acquisition would be funded through a mix of debt and equity.

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<sup>3</sup> Vertical integration strategy – acquisition of businesses higher and/or lower in the supply chain

## **5 Scope of Our Report**

### **5.1 Purpose of the Report**

As a result of the Proposed Transaction, Mr Fan's relevant interest in Quay Magnesium will increase from 18.58% to 42.45% on an undiluted basis, or 55.49% on a diluted basis. In accordance with the Corporations Act, the Directors have appointed WHK Horwath Corporate Finance as an Independent Expert to express an opinion addressing whether or not the terms of the Proposed Transaction are fair and reasonable to the non-associated shareholders in Quay Magnesium.

Our Independent Expert's Report to shareholders has been prepared to assist shareholders in forming the view as to whether to approve the Proposed Transaction.

### **5.2 Corporations Act 2001 (the "Act")**

Subject to certain exceptions, Section 606(1) of the Act ("**Section 606**") does not allow a person to acquire voting shares in a public company if that person's or someone else's voting power in the company increases, either from 20 percent or below to more than 20 percent, or any increase from a starting point that is above 20 percent and below 90 percent.

Section 611 of the Act ("**Section 611**") requires that, in the absence of an offer in which all shareholders can participate, any allotment of shares resulting in a person holding in excess of 20 percent of the issued share capital of the company must be approved by the shareholders who are not participating in the proposed allotment.

Section 611 provides an exemption to Section 606 if the transaction is approved by a resolution at a General Meeting of the Company's shareholders.

Quay Magnesium is seeking exemption under Section 611 by approval by the non-associated shareholders.

### **5.3 Listing Rules**

ASX Listing Rule 7.1 prohibits a listed entity from issuing or agreeing to issue new securities in any 12 month rolling period, if in doing so it would have issued more than 15% of the total number of securities on issue at the date 12 months prior to the date of issue, unless the issue falls within specified exceptions or is approved by shareholders.

### **5.4 Other Guidelines**

We have also given due consideration to relevant matters in other guidelines, specifically including Regulatory Guide 74 'Acquisitions agreed to by shareholders' ("**Regulatory Guide 74**") and Regulatory Guide 112 'Independence of Experts' ("**Regulatory Guide 112**") issued by ASIC.

### **5.5 Basis of Evaluation**

In evaluating the fairness and reasonableness of the Proposed Transaction, we have considered the requirements of the Act and relevant Regulatory Guides issued by ASIC, which provide guidance on interpretation.

This Report takes into account the provisions of Regulatory Guide 111 'Content of Expert Report's ("**Regulatory Guide 111**") issued by ASIC which states that if a company issues securities and, as a consequence, the allottee acquires over 20 percent of the company, the transaction should be analysed as if it were a takeover bid.

Regulatory Guide 111 distinguishes “fair” from “reasonable” and considers:

- (a) A proposal to be “fair” if the value of the offer is equal to or greater than the value of the securities subject to the offer. This comparison should be made assuming 100% ownership of the “target” and irrespective of whether the consideration is scrip or cash. The expert should not consider the percentage held by the “bidder” or its associates in the target when making this comparison.
- (b) An offer to be “reasonable” if it is fair. It might also be reasonable if, despite being “not fair”, the expert believes that there are sufficient reasons for shareholders to accept the offer in the absence of any higher bid before the close of the offer.

For the purposes of this Report, WHK Horwath Corporate Finance has treated “fair” and “reasonable” as separate concepts.

## **5.6 Our Approach**

In forming our opinion on whether or not the terms of the Proposed Transaction are fair and reasonable for Quay Magnesium’s non-associated shareholders, we have compared:

- our assessment of the value of Quay Magnesium shares before the Proposed Transaction on a controlling basis;
- our assessment of the value of Quay Magnesium shares after the Proposed Transaction on a minority basis; and
- the likely advantages and disadvantages of the terms of the Proposed Transaction for Quay Magnesium and its non-associated shareholders.

### **5.6.1 Fairness**

For the purpose of assessing the fairness of the Proposed Transaction to the non-associated shareholders of Quay Magnesium, we compared the value of Quay Magnesium shares before and after the Proposed Transaction.

Specifically, we assessed the value of Quay Magnesium shares under three scenarios, being:

- **Scenario 1:** the value of Quay Magnesium shares on a controlling basis if the Proposed Transaction does not proceed;
- **Scenario 2:** the value of Quay Magnesium shares on a minority basis if the Proposed Transaction does proceed and the options issued to Clever Talent Group are not exercised; and
- **Scenario 3:** the value of Quay Magnesium shares on a minority basis if the Proposed Transaction does proceed and the options issued to Clever Talent Group are exercised.

Under this methodology, if the value of Quay Magnesium shares after the Proposed Transaction is greater than the value of Quay Magnesium shares prior to the transaction, there will be a benefit to the non-associated shareholders of Quay Magnesium, and as such, the Proposed Transaction would be fair.

Conversely, if the value of Quay Magnesium shares after the Proposed Transaction is less than the value of Quay Magnesium shares prior to the transaction, there will be a dilution in value to the non-associated shareholders of Quay Magnesium under the Proposed Transaction, and as such, the Proposed Transaction would be unfair.

## **5.6.2 Reasonableness**

Regulatory Guide 111 considers an offer to be reasonable if either the offer is fair, or despite the offer not being fair, but considering other significant factors, security holders should accept the offer in the absence of any higher bid before the close of the offer. In addition to determining whether the Proposed Transaction is fair we have considered the following significant factors, recommended by ASIC Regulatory Guide 111, to assess their reasonableness:

- the existing ownership structure of Quay Magnesium;
- the likely price and market liquidity of Quay Magnesium shares in the absence of the Proposed Transaction;
- the likelihood of alternatives to the Proposed Transaction for Quay Magnesium; and
- other implications for Quay Magnesium shareholders accepting or rejecting the Proposed Transaction.

## **5.7 Disclosure of Information**

In preparing this Report, Quay Magnesium has requested WHK Horwath Corporate Finance to limit the disclosure of some information relating to the operations and financial performance of Quay Magnesium due to the commercially sensitive nature of the financial and operational information which WHK Horwath has had access to in the course of this assignment. The disclosure in this Report has been limited to information that is publicly available and information that Management are satisfied is not commercially sensitive.

## **5.8 Limitations and Reliance on Information**

WHK Horwath Corporate Finance's opinion is based on economic, share market, business and trading conditions prevailing at the date of the announcement and any material subsequent events to the date of this Report. These conditions can change significantly over relatively short periods. If they did change materially, the valuation and our opinion could vary significantly.

This Report is based upon financial and non-financial information provided by Quay Magnesium and its advisers. WHK Horwath Corporate Finance has considered and relied upon this information and has no reason to believe that any material facts have been withheld. The information provided to WHK Horwath Corporate Finance has been evaluated through analysis, inquiry and review for the purposes of forming an opinion as to whether the Proposed Transaction is fair and reasonable to the Quay Magnesium shareholders. However, WHK Horwath Corporate Finance does not warrant that its inquiries have identified or verified all of the matters that an audit, extensive examination or due diligence investigation might disclose.

An important part of the information used in forming an opinion as to fairness and reasonableness is comprised of the opinions and judgement of Management. This type of information was evaluated through analysis, inquiry and review. However, such information is often not capable of external verification or validation and has not been independently verified.

A limitation on our Report was that year-to-date financial statements were not available as at the date of our Report. The most recent financial statements available to us were those disclosed in Quay Magnesium's Annual Report for the year ended 30 June 2010. Quay Magnesium's internal reporting is prepared on a quarterly basis and draft financial statements for the quarter ended 30 September 2010 were not available as at the date of our Report. In the absence of year-to-date financial statements, we estimated the financial position of Quay Magnesium as at 30 September 2010. Should the actual financial statements for the quarter ended 30 September 2010 be materially different to our estimates, this may impact our conclusions.

To the extent that there are legal issues relating to assets, properties, or business interests or issues relating to compliance with applicable laws, continuous disclosure rules, regulations, and policies, WHK Horwath Corporate Finance:

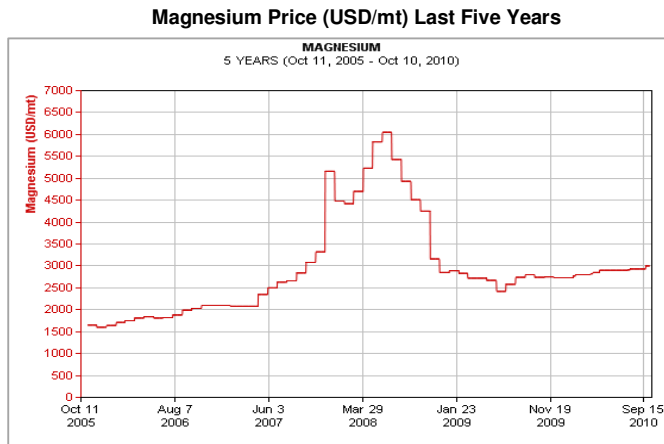
- assumes no responsibility and offers no legal opinion or interpretation on any issue; and
- has generally assumed that matters such as title, compliance with laws and regulations and contracts in place are in good standing and will remain so and that there are no legal proceedings, other than as publicly disclosed.

## 6 Industry Overview

### 6.1 Overview

Quay Magnesium operates in the Materials Industry, specifically in the magnesium alloy production industry in China.

The global magnesium industry has been experiencing a significant reduction in demand in all major sectors since 2008, with prices falling by up to 50%<sup>4</sup>. While China's global share of world production has reached over 75%<sup>5</sup>, changes in ownership of key producers and the emergence of potentially new Chinese producers have added a new dimension to the industry, along with the introduction of new processing technologies.



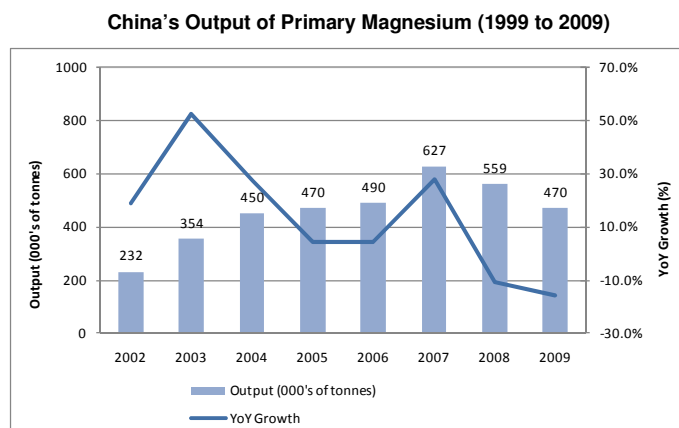
Source: Global InfoMine

The adjacent graph illustrates the price of magnesium in US dollars per metric tonne over the five years to September 2010.

The price of magnesium tripled over the course of 2007 and the first half of 2008, and subsequently declined sharply during the second half of 2008.

### 6.2 Magnesium

Magnesium is considered a strong and lightweight metal (less than two thirds the weight of aluminium)<sup>6</sup>. It also has high damping and rigidity properties which mean it is becoming increasingly useful as a structural component in a number of industries<sup>7</sup>. It is the third most commonly used structural metal, following steel and aluminium and can be largely attributed to the fact that it machined faster and requires less energy than most of the commonly used structural metals such as steel and aluminium<sup>8</sup>.



Source: International Magnesium Association

Since 1998, China has been the leading producer of primary magnesium. The primary magnesium output in China accounted for approximately 76% of the world's total in 2009, and China's output of primary magnesium totalled 470,000 tonnes in 2009, down 15.9% from the prior year as depicted in the adjacent graph<sup>9</sup>.

<sup>4</sup> Ten Year Strategic Outlook for the Global Magnesium Market, Market Bulletin Research

<sup>5</sup> ibid

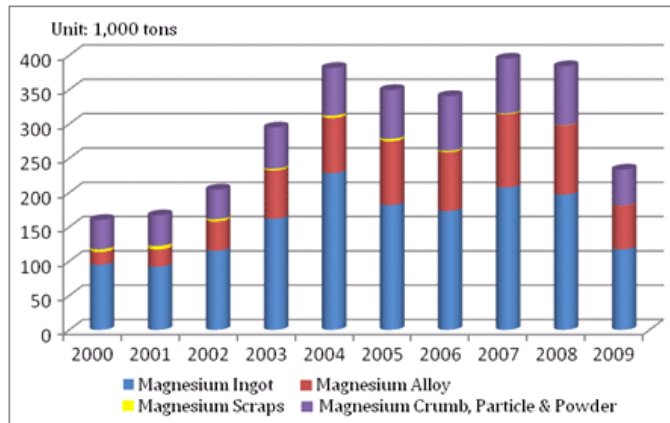
<sup>6</sup> New World Encyclopedia Website ([www.newworldencyclopedia.org](http://www.newworldencyclopedia.org))

<sup>7</sup> ibid

<sup>8</sup> ibid

<sup>9</sup> International Magnesium Association website: <http://www.intlmag.org/statistics.html>

China's Export Volume of Magnesium Products (2000 to 2009)



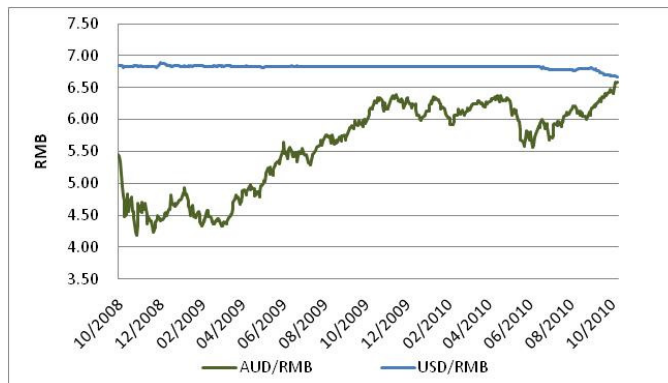
Source: ResearchInChina

Impacted by global economic downturn in the first half of 2009, the output of magnesium fell as magnesium companies reacted by reducing their production substantially. The adjacent graph depicts China's export volume by magnesium product.

The export of magnesium products of all kinds amounted to 233,500 tonnes in total in 2009, down 41.09% from the prior year and the export value of US\$646 million decreased 61.37% from the prior year.

The drop in China's export volume of magnesium products during 2008 to 2009 is largely due to depressed global demand as a result of the global financial crisis.

Foreign Exchange Rates



Quay Magnesium is exposed to fluctuations in the Australian Dollar ("AUD") / Chinese Renminbi ("RMB") exchange rate and the United States Dollar ("USD") / RMB exchange rate. The adjacent graph depicts these exchange rates over the two years to 11 October 2010.

The AUD has appreciated against the RMB at a CAGR<sup>10</sup> of approximately 21% over this period<sup>11</sup>.

The USD has remained stable against the RMB since the RMB is managed by the Chinese central bank, the People's Bank of China, to trade within a narrow band with respect to a basket of currencies, predominantly the USD.

The impact of the appreciation of the AUD is that Quay Magnesium's AUD reported results are impaired on conversion.

### 6.3 Applications of Magnesium<sup>12</sup>

Magnesium has a wide number of applications, both in its metal form as well as a component of a range of compounds. The most common compound within which it is used is magnesium oxide which is a major component of a wide range of ceramic and refractory materials used in domestic and industrial applications, and an important ingredient in various consumer products for the agricultural, horticultural and pharmaceutical sectors.

The traditional uses of magnesium metal are:

- an additive to a wide range of aluminium alloys in pure magnesium form;
- an alloy of magnesium for die-casting, granules or wrought products (extrusion sheet plate);

<sup>10</sup> CAGR – compound annual growth rate

<sup>11</sup> Reserve Bank of Australia

<sup>12</sup> New World Encyclopedia Website ([www.newworldencyclopedia.org](http://www.newworldencyclopedia.org))

- a chemical reductant for the production of other high-value metals, especially titanium, and as a catalyst or reagent in the industrial chemicals industry; and/or
- a means of purifying crude iron and steel products.

Although magnesium can be used in metallic form in some applications, most applications require the use of an alloy of magnesium. The following are the most commonly used as alloying metals: zinc, strontium, manganese, aluminium, beryllium and rare earth metals. Magnesium alloys are relatively light (about 33% lighter than aluminium alloys and about 75% lighter than cast iron).

Selected examples of the expanding applications of magnesium and its alloys include the following:

- aerospace industry;
- automotive industry; and
- consumer goods.

The major users of magnesium alloys in the aerospace and automotive industries include Boeing, Airbus, Ford, General Motors, Volvo, VW and Toyota which all have a significant technical and commercial involvement in the development and application of high performance magnesium alloys in their industries.

#### **6.4 Production<sup>13</sup>**

The two methods for producing magnesium metal are:

- the high temperature reduction of a suitable source of magnesium such as magnesite or dolomite; and
- the electrochemical reduction of magnesium chloride - the magnesium chloride can be derived from sea water or other magnesium-containing brines or via the chemical processing of magnetite or dolomite.

Magnesium alloys are prepared by melting together the required amounts of alloying components. The molten alloys are subjected to appropriate refining techniques before being cast into ingots, the size and shape of which are matched to the requirements of the customer, such as a die caster producing components for the automotive industry.

In the past alloying and refining has been carried out via a so-called "crucible-to-crucible" technique. This is not particularly efficient as it leads to relatively high metal losses and the generation of excessive quantities of product that do not meet the specifications for the high performance alloys required by customers, especially in the aerospace and automotive industries.

Quay Magnesium uses an advanced salt refining technology to produce magnesium alloys of the highest quality that are expected to comply with, or exceed the current and anticipated future specifications for all of the high performance applications of magnesium alloys. The salt refining technology used by Quay Magnesium not only yields products of the required specifications but is more energy efficient and has substantially lower metal losses than the traditional method.

#### **6.5 Producers of Magnesium and Magnesium Alloys**

China is the largest producer and exporter of primary magnesium in the world today. Its dominance in the magnesium and magnesium alloying industry can be attributed to its abundant sources of magnesium (magnesite and dolomite), as well as low-cost labour and energy. The Top 10 largest producers in China account for approximately 65% of China's output<sup>14</sup>.

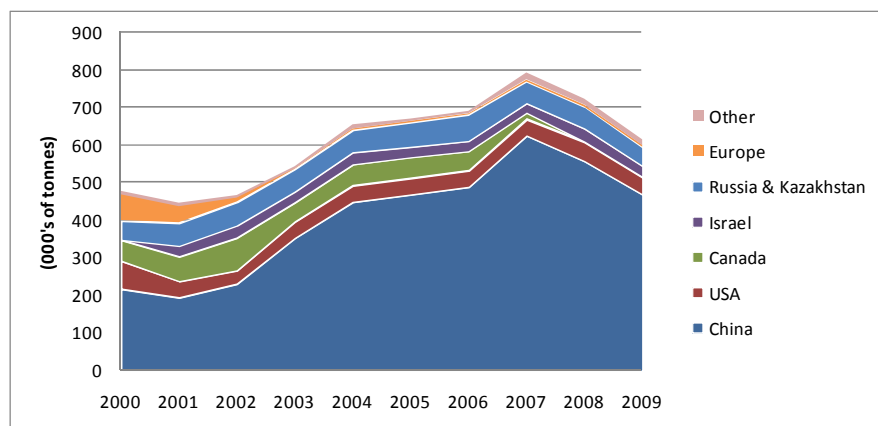
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<sup>13</sup> New World Encyclopedia Website ([www.newworldencyclopedia.org](http://www.newworldencyclopedia.org))

<sup>14</sup> China Magnesium Industry & Market Bulletin – [www.metalbulletin.net.cn](http://www.metalbulletin.net.cn) (based on 2008 output)

Other producers include Dead Sea Magnesium, US Magnesium and a number of operations within the Russian Federation, however even combining these other producers only represent a minority (less than 25%) of a heavily controlled Chinese industry as depicted in the table below:

**International Output of Primary Magnesium (2000 to 2009)**



Source: International Magnesium Association

## 6.6 Key Competitors

Whilst a number of businesses operate in the metal alloys industry, Quay Magnesium's most direct competitors is Nanjing Welbow Metals Co, Ltd ("**Welbow**").

Welbow manufactures alkaline metals and related alloys. Its products include magnesium, aluminium master, and aluminium alloys, as well as strontium metals. The company also provides chips, dross, and slag recycling services to the die-casting industry. It sells its products in China, Europe, North and South America, Southeast Asia, and Africa. Welbow is larger and more diversified than Quay Magnesium and is vertically integrated.

## 6.7 Current Status & Outlook for the Chinese Automotive Industry<sup>15</sup>

The Chinese automotive industry has grown rapidly during the past decade, as summarised by growth in total production of cars detailed below:

Quay Magnesium Vehicles Produced in China		
Year	Production (millions)	Growth (%)
2000	2.070	
2001	2.330	12.6%
2002	3.250	39.5%
2003	4.440	36.6%
2004	5.070	14.2%
2005	5.710	12.6%
2006	7.280	27.5%
2007	8.880	22.0%
2008	9.350	5.3%
2009	13.830	47.9%
2010(f)	17.288	25.0%
<b>Average</b>		<b>24.3%</b>
<b>CAGR</b>	<b>23.6%</b>	

Following significant growth during 2009, the Chinese automotive industry appears to be returning to growth at more sustainable/historical levels, as indicated by the adjacent table. This is further supported by the China Automotive Industry Climate Index which stabilised for the second quarter of the 2010 calendar year ("**2Q10**") after three consecutive quarters of growth.

<sup>15</sup> China Economic Monitoring Center of China National Bureau of Statistics and Sinotrust International Information & Consulting (Beijing) joint release the "2010 Q2 China Automotive Industry Climate Index"

The following trends were observed in a 2Q10 survey conducted by China Economic Monitoring Center of China National Bureau of Statistics and Sinotrust International Information & Consulting (Beijing):

- Industry Climate Index remained high despite stabilising;
- indicators of production, sales, profit and tax all continued to rise, although growth slowed;
- as the automotive industry's restocking process concludes following the global financial crisis, growth in demand for cars is losing its momentum, deserving the close attention of automakers; and
- both the Entrepreneur Expectation Index and the Dealer Manager Index continued to drop.

Specifically, 25.1% of dealers reported that sales declined from 1Q10 and 30.8% of dealers believe the situation will deteriorate in Q310. In-line with this, declining retail sales and pressure from increased inventories has already started to impact automakers. Although still optimistic, most automakers are now cautious with respect to Q310.

According to China Association of Automobile Manufacturers, China's automotive sales volume for the first half of 2010 was 9.0161 million vehicles, up 47.67% over the same period last year, however, the growth rate over the remainder of 2010 will decline. According to industry experts, China's automotive sales volume for the full 2010 year will reach 17 million vehicles, growing by 25% compared with 2009.

## **6.8 Conclusion**

Whereas Quay Magnesium has historically focussed on producing in China and exporting predominantly to North America and Europe, Management have advised the future focus will be on developing sales channels in China.

Whilst Quay Magnesium is currently producing at uneconomic quantities and does not have reliable long term supply contracts, the strength and size of the Chinese automotive industry should provide opportunities for Quay Magnesium provided it can establish effective supply and sales channels within China.

## 7 Profile of Quay

### 7.1 Introduction

#### 7.1.1 Background

Quay Magnesium is an Australian owned publicly listed company with an alloying production plant in Nanjing, China. Quay Magnesium produces a range of high performance magnesium alloys that are targeted for use by die casting customers in the automotive and electronics industries.

The Company listed on the ASX in September 2004, raising \$28.1 million via an initial public offering. This initial capital raising provided funds for the acquisition of its original Nanjing plant, which had a capacity of 15,000 tonnes per annum. Quay Magnesium proceeded to raise an additional \$9.7 million to fund expansion and enable the construction of a newer production facility in Nanjing with a capacity of 25,000 tonnes per annum, which was completed in August 2005. In 2008, a fire caused damage to Quay Magnesium's production facilities. Quay Magnesium returned to production two months later. Full repair works were finally completed during February 2010.

During the past four years, Quay Magnesium has raised several tranches of debt and equity funding in order to fund capital works and ongoing working capital.

#### 7.1.2 Market Positioning & Strategy

Quay Magnesium's customers would prefer long term, fixed price contracts. At present however, Quay Magnesium do not have effective long term supply contracts to match this demand. Accordingly, Quay Magnesium can only buy its major feedstock (pure magnesium) at the relevant spot price and there is no effective way for the Company to hedge the associated costs (via a market such as the London Metals Exchange). As a result, Quay Magnesium is subject to significant price volatility with respect to its cost of production.

The mismatch between Quay Magnesium's sales and supply contracts has caused supply shortages, inhibited its ability to sell product and forced it to purchase feedstock in the spot market.

Management have attempted to implement a vertical integration strategy in order to better manage the price and supply risks, and enable it to sell to a broader range of customers on a longer term basis. However, to-date, Quay Magnesium have not completed a successful transaction.

#### 7.1.3 Current Status

Since August 2009, Central Turbo has injected \$970,000 of cash into Quay Magnesium, These funds have provided working capital finance and enabled Quay Magnesium to explore potential acquisitions of feedstock businesses in China. As set out in ASX announcements and the Chairman's letter contained in Quay Magnesium's Annual Report, these opportunities did not meet legal due diligence and were put on hold until such time that the potential targets can demonstrate that they do.

Quay Magnesium currently requires additional funding in order to continue operations. The notes to the financial statements contained in Quay Magnesium's Annual Report for the year ended 30 June 2010 state that:

*"Without an equity raising, further external finance and the achievement of positive cash flow of the Nanjing operation there is significant uncertainty whether the consolidated entity will be able to continue as a going concern."*

### 7.1.4 Key Milestones

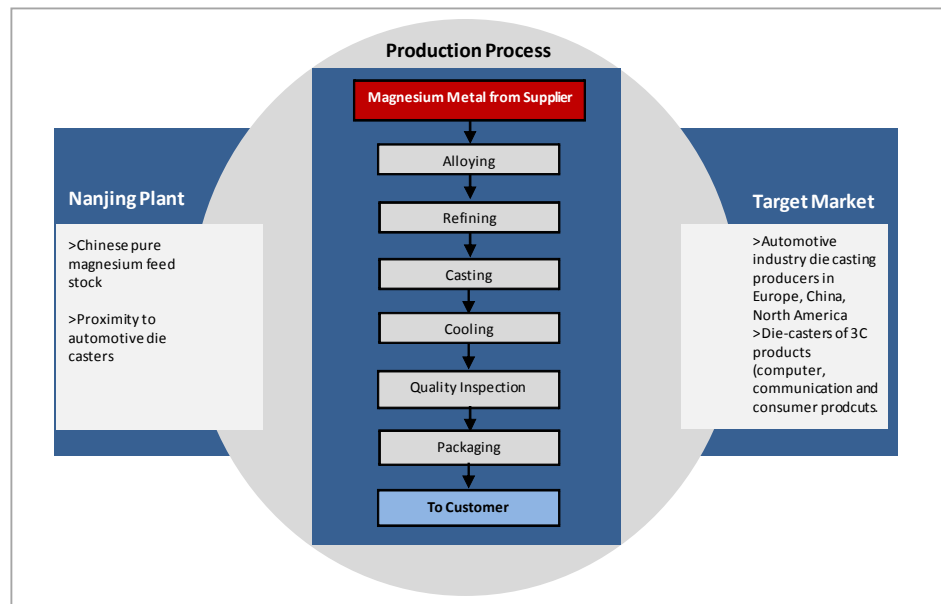
Summarised below are key events of Quay Magnesium since listing publicly in 2004.

Quay Key Milestones	
Date	Milestone
Sep-04	Initial Public Offering and listing on ASX.
Aug-05	Completed construction of plant with a capacity of up to 25,000 tonnes p.a.
Jul-07	Quality approval from VW Germany.
Sep-07	Placement of 16 million shares raising \$2.4m.
Oct-07	Supplier approval from Chrysler.
Feb-08	Proposed acquisition of Chinese Pure Magnesium Plant terminated due to failing legal due diligence.
Apr-08	Fire damage to plant suspending production for 6 to 8 weeks.
Jul-08	Announcement to proceed with a joint venture transaction and not the acquisition of the Chinese Pure Magnesium Producer. The Chinese acquisition did not meet legal due diligence regarding land rights.
Aug-08	Secured USD10m revolving credit facility to fund working capital from a leading London based financial institution.
Jul-09	Entered subscription agreement with Central Turbo Limited to raise \$510,000 through share placement
Dec-09	Entered subscription agreement with Central Turbo Limited and four other Chinese investors to raise \$710,000 through share placement
May-10	Letter of Intent signed with a Chinese group to acquire a beneficial interest of the output of a pure magnesium plant and linked half coke plant.
Sep-10	Announcement of the Proposed Transaction.

Source: Quay ASX announcements

### 7.1.5 Production Process

Quay's production process is illustrated below:



Source: Quay Investor Presentation

### 7.1.6 Technology

Quay Magnesium uses a molten electrolyte furnace technology that enables it to continuously produce high volumes of alloy using temperature and chemistry control that result in consistently clean high quality alloys. These alloys are homogenous and have low oxide inclusions which meet international standards.

Quay Magnesium's advanced melting and casting processes are continuous and potentially give the Company a significant competitive advantage to most magnesium alloying operations who tend to use variable batch processes. Notwithstanding this, the challenge for Quay Magnesium is to build its supply and customer networks.

### 7.1.7 Target Customers

Quay's customer base comprises consumers of high grade magnesium alloys for use in automotive, electronics and aerospace die-cast applications. The need for light weight applications by consumers was driving significant growth prior to the global financial crisis. Since the global financial crisis, markets for Quay Magnesium's products, particularly the automotive industry has remained depressed. Quay Magnesium currently sells its products globally.

### 7.1.8 Competitive Advantages

Notwithstanding the current unfavourable industry climate and Quay Magnesium's supply issues, Management of Quay Magnesium believe the Company possesses the following competitive advantages:

- **Location of the Nanjing facility:** Quay Magnesium's Nanjing facility is strategically positioned in the hub of the Chinese automotive industry.
- **Unique technology:** Quay's Nanjing facility utilises technology unique to China. This technology enables Quay Magnesium to produce the consistently homogenous high quality alloys that automotive customers require.
- **Metallurgical, process development and marketing expertise:** Quay Magnesium has experienced teams in the areas of metallurgical and process development and magnesium marketing.
- **Customers are blue chip companies:** Quay Magnesium's customers are blue chip companies based in Europe, North America and China.

### 7.1.9 Board of Directors and Executive Management

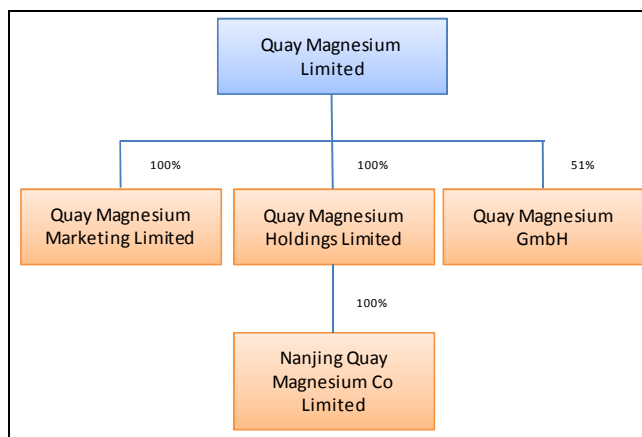
The members of the Quay Board of Directors and key Executive Management are listed below:

Quay Board of Directors and Executive Management		
Name	Position	Date Appointed
<b>Directors</b>		
Mr P W Stuntz	Executive Chairperson/Director	18-Sep-03
Mr N E M Bonser	Executive Director	31-May-03
Mr B J Joyce	Executive Director	24-Mar-03
<b>Executive Management</b>		
Rob Bailey	General Manager	13-Feb-06
Kevin Qian	Chief Financial Officer	21-Jun-10

Source: Quay Magnesium 2010 Annual Report

### 7.1.10 Corporate Structure

The chart below illustrates Quay's corporate structure.



Source: Quay 2010 Annual Report

- **Quay Magnesium Marketing Limited:** incorporated on 12 February 2004 under the International Business Companies Act (Cap 291) Territory of the British Virgin Isles.
- **Quay Magnesium Holdings Limited:** incorporated on 12 February 2004 under the International Business Companies Act (Cap 291) Territory of the British Virgin Isles.
- **Quay Magnesium GmbH:** An unlisted company owned 51% by Quay Magnesium. Quay Magnesium GmbH is a joint venture sales and marketing company formed with Age GmbH (49%) for selling into Europe.
- **Nanjing Quay Magnesium Co Ltd:** Subsidiary incorporated in China. The formal approval under the law of the People's Republic of China was received on 27 March 2004 to commence incorporation of a Company and its planned relevant business to invest in magnesium alloying manufacturing.

## 7.2 Financial History

### 7.2.1 Financial Summary

Quay Magnesium's operating loss for the year ended 30 June 2010 reflects an improvement on the prior year based on increased production volumes resulting in increased sales revenues and improved margins. Notwithstanding these improvements:

- the selling price of processed magnesium remained relatively low;
- the strengthening of the AUD against the RMD put further pressure on AUD revenues;
- Quay Magnesium's plant is still operating at uneconomic quantities and significantly below capacity;
- Quay Magnesium lacks reliable long term supply contracts; and
- trading conditions remain adverse as a result of the global economic crisis and the slow recovery of the automotive sector.

The magnesium and magnesium alloy markets continue to be weak and this is reflected in Quay Magnesium's financial results. Overall market volumes and margins fell steeply at the time of the global financial crisis over two years ago and have yet not recovered. Trading conditions in the industry and the automotive sector specifically are difficult.

As a result of operating at below economic capacity levels, the volatile price of magnesium alloy and raw magnesium feedstock and the absence of reliable long term supply contracts (meaning that Quay Magnesium is forced to purchase raw materials at the relevant spot price), Quay Magnesium has operated at a negative gross margin. Margins significantly improved during 2010 due to a combination of increased production volumes and cost saving measures such as using smaller furnaces in place of the main melt furnace while operating at low volumes, resulting in significant savings in energy costs.

Notwithstanding the improvement in operating performance during 2010, Quay Magnesium's break-even production volume is greater than two times the level of production achieved in 2010.

## 7.2.2 Operating Performance

Summarised below is the operating performance of Quay Magnesium during the years ended 30 June 2007 to 2010.

<b>Quay Magnesium</b>					
<b>Summary of Operating Performance (\$'000s)</b>					
	<b>Notes</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
		<b>Audited</b>	<b>Audited</b>	<b>Audited</b>	<b>Audited</b>
<b>Revenue</b>		<b>5,615</b>	<b>9,146</b>	<b>5,240</b>	<b>11,685</b>
Cost of sales		8,631	12,752	7,297	12,388
<b>Gross Profit</b>		<b>(3,016)</b>	<b>(3,606)</b>	<b>(2,057)</b>	<b>(703)</b>
<i>% of Revenue</i>		<i>(53.7%)</i>	<i>(39.4%)</i>	<i>(39.3%)</i>	<i>(6.0%)</i>
<b>Expenses</b>					
Employee and director benefits expense		1,448	1,966	1,682	1,096
Selling expenses		173	1,434	778	1,076
Administrative expenses		2,210	1,845	1,274	1,409
Other		(14)	(1)	78	191
Net expense - fire damaged assets	1	-	269	-	-
Asset impairment write-down	2	-	-	6,876	-
<b>Total Expenses</b>		<b>3,817</b>	<b>5,513</b>	<b>10,688</b>	<b>3,771</b>
Foreign currency translation differences	3	(2,857)	(839)	5,128	(1,383)
<b>Reported EBITDA</b>		<b>(9,689)</b>	<b>(9,957)</b>	<b>(7,617)</b>	<b>(5,858)</b>
Less: Foreign currency translation differences	3	2,857	839	(5,128)	1,383
Add: Net expense - fire damaged assets	1	-	269	-	-
Add: Asset impairment write-down	2	-	-	6,876	-
<b>Adjusted EBITDA</b>		<b>(6,833)</b>	<b>(8,849)</b>	<b>(5,869)</b>	<b>(4,475)</b>
<b>Adjusted EBIT</b>		<b>(7,541)</b>	<b>(9,803)</b>	<b>(7,097)</b>	<b>(5,684)</b>
<b>Adjusted NPBT</b>		<b>(7,432)</b>	<b>(9,857)</b>	<b>(7,253)</b>	<b>(5,861)</b>
<i>Revenue growth/(decline)</i>			<i>62.9%</i>	<i>(42.7%)</i>	<i>123.0%</i>
<i>Adjusted EBIT/revenue</i>		<i>(134.3%)</i>	<i>(107.2%)</i>	<i>(135.4%)</i>	<i>(48.6%)</i>

Source: Annual Reports, includes rounding

### Notes:

1. **Net Expense – Fire Damaged Assets:** On 25 April 2008, the Nanjing plant was damaged by a fire. The equipment control systems and wiring were damaged and resulted in the facility ceasing production. The plant returned to production and 22 July 2008 and begun supplying customers immediately. This expense relates to the net cost associated with the fire damaged assets after insurance recoveries. This expense has been adjusted against the earnings of the Company for that period.

2. **Asset Impairment Write-Down:** During the year ended 30 June 2009, the downturn in the global market conditions, lack of sales and significant variance between consolidated net assets and market capitalisation, resulted in a re-assessment of the recoverable amount related to the Company's property, plant and equipment and Quay Magnesium's investment in the Nanjing Quay Magnesium subsidiary. The carrying amount of the unit was determined to be higher than its recoverable amount and an impairment loss of approximately \$6.876 million was recognised. The impairment loss was allocated fully to property, plant and equipment. This expense has been adjusted against the earnings of the Company for that period.
  
3. **Foreign Currency Translation Differences:** The functional currency of the Company is AUD and the functional currency of the Company's overseas subsidiaries is RMB. The translation differences have been adjusted against the earnings of the Company for the relevant periods.

### 7.2.3 Operating Position

The operating position of Quay Magnesium as at 30 June 2007 to 2010 is summarised below:

<b>Quay Magnesium</b>					
<b>Summary of Operating Position (\$000s)</b>					
	<b>Notes</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
		<b>Audited</b>	<b>Audited</b>	<b>Audited</b>	<b>Audited</b>
<b>Current assets</b>					
Cash and cash equivalents	1	3,717	3,476	150	1,103
Trade and other receivables	2	4,256	1,706	1,035	2,215
Insurance receivable		-	2,014	-	-
Inventories	2	1,745	1,278	396	963
Other current assets	2	91	67	52	38
<b>Total current assets</b>		<b>9,810</b>	<b>8,540</b>	<b>1,634</b>	<b>4,319</b>
<b>Non-current assets</b>					
Property, Plant, Equipment	3	24,864	20,424	16,650	13,490
<b>Total non-current assets</b>		<b>24,864</b>	<b>20,424</b>	<b>16,650</b>	<b>13,490</b>
<b>TOTAL ASSETS</b>		<b>34,674</b>	<b>28,964</b>	<b>18,284</b>	<b>17,809</b>
<b>Current liabilities</b>					
Trade and other payables	2	1,794	868	1,874	2,452
Employee benefits	2	45	72	61	56
Loans and borrowings	4	1,543	2,735	-	4,962
<b>Total current liabilities</b>		<b>3,382</b>	<b>3,676</b>	<b>1,934</b>	<b>7,471</b>
<b>TOTAL LIABILITIES</b>		<b>3,382</b>	<b>3,676</b>	<b>1,934</b>	<b>7,471</b>
<b>NET ASSETS</b>		<b>31,292</b>	<b>25,288</b>	<b>16,350</b>	<b>10,338</b>

Source: Annual Reports, includes rounding

#### Notes:

1. **Cash:** based on discussions with Management, we understand the cash burn<sup>16</sup> from 30 June 2010 to the date of this Report to be approximately \$900,000;
  
2. **Working capital:** working capital or the level of liquid net assets as at 30 June 2010 was approximately \$700,000;

<sup>16</sup> Cash burn – amount of cash used up in operations over a period of time

3. **Property, plant & equipment:** comprises the following items which are converted into AUD at the exchange rate applicable at the end of each financial year:

Quay Magnesium			
Carrying Value of Fixed Assets as at 30 June 2010 (\$000s)			
	Notes		Amount
Land rights	a		767
Building construction	b		5,531
Plant & equipment	c		6,512
Other project costs	d		520
Office equipment			92
Motor vehicles			68
<b>Total value of fixed assets</b>			<b>13,490</b>

Notes:

- a. **Land rights:** as Quay Magnesium is considered a wholly owned foreign entity, it cannot own land in China. Quay Magnesium's operational premises in Nanjing, China are subject to a 99 year lease, entered into during 2004, and carry restrictions whereby Quay Magnesium cannot use the land for any new purpose without first obtaining Nanjing Hi-tech Development Zone approval;
  - b. **Building construction:** comprises the various buildings and furnaces which house the production and other facilities in Nanjing, China;
  - c. **Plant & equipment:** comprises various transformers, generators, high voltage cabinets and production machinery located in Nanjing, China; and
  - d. **Other project costs:** comprise other costs related to construction the construction of buildings and plant and equipment based in Nanjing, China;
4. **Loans & borrowings:** comprise the following amounts all held in RMB and converted into AUD at the end of each financial year. We note that all banking facilities held by Quay Magnesium are for a term of one year only and are rolled over by the Company as they fall due. Management have achieved successful rollover of Quay Magnesium's debt facilities historically and have advised they expect to continue doing so going forward:
- a. **Industrial & Commercial Bank of China:** RMB 20 million working capital facility, fully drawn, plus an RMB 8 million factoring facility, drawn to the maximum current amount available, being RMB 3.8 million. These facilities expire in May to August 2011.
  - b. **Shanghai Pudong Development Bank:** RMB 5 million facility, fully drawn and in the process of being rolled over in accordance with usual practice as detailed above. Management have advised they envisage no problems in achieving a successful rollover.

## 7.2.4 Cash Flows

Quay Magnesium's cash flows for the years ended 30 June 2007 to 2010 are summarised below:

Quay Magnesium Summary of Cash Flows (\$000s)				
	2007	2008	2009	2010
	Audited	Audited	Audited	Audited
<b>Cash from operating activities</b>				
Cash receipts from customers (incl GST)	2,681	11,563	7,909	10,338
Cash paid to suppliers and employees	(13,749)	(17,376)	(7,935)	(14,947)
Interest paid	(30)	(153)	(194)	(183)
<b>Net cash from operating activities</b>	<b>(11,098)</b>	<b>(5,966)</b>	<b>(219)</b>	<b>(4,792)</b>
<b>Cash flows from investing activities</b>				
Payments for plant property and equipment	(4,696)	(240)	(2,476)	(396)
Proceeds from sale of plant property and equipment	-	-	-	12
Interest Received	157	99	37	6
<b>Net cash from investing activities</b>	<b>(4,539)</b>	<b>(140)</b>	<b>(2,439)</b>	<b>(379)</b>
<b>Cash flows from financing activities</b>				
Net proceeds from the issue of share capital	11,051	4,719	-	1,165
Cash received (repaid) in respect of Borrowings	1,543	1,222	(668)	4,962
Payment of Costs in respect of Share issues	(253)	(44)		
<b>Net cash from financing activities</b>	<b>12,341</b>	<b>5,897</b>	<b>(668)</b>	<b>6,127</b>
Net increase in cash and cash equivalents	(3,296)	(209)	(3,325)	956
Cash and cash equivalents at 1 July	7,062	3,717	3,476	150
Effect of exchange rate fluctuations on cash held	(48)	(32)	-	(4)
<b>Cash and cash equivalents at 30 June</b>	<b>3,717</b>	<b>3,476</b>	<b>150</b>	<b>1,103</b>

Source: Annual Reports, includes rounding

## 7.3 Ownership Details

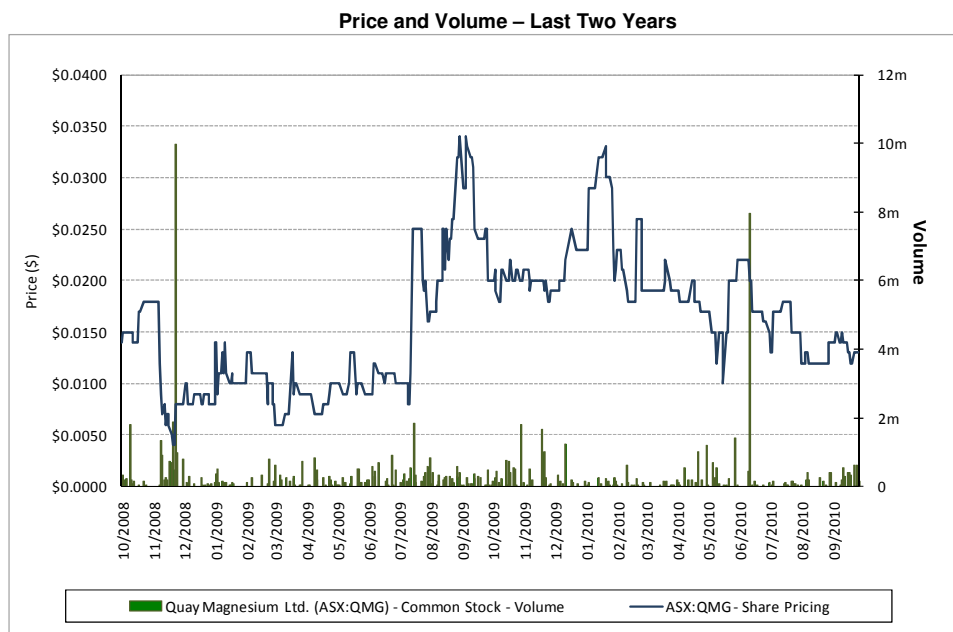
As at 28 September 2010, Quay Magnesium had 301.42 million ordinary shares on issue (with no options on issue). The following table sets out the Top 10 shareholders in Quay Magnesium.

Quay Magnesium Top 10 Shareholders as at 28 September 2010			
Rank	Holder	Number of Shares	% Issued Capital
1	Central Turbo Limited	56,000,000	18.58%
2	HSBC Custody Nominees (Australia) Limited - A/C 3	25,722,452	8.53%
3	Peter Wayne Stuntz	23,750,000	7.88%
4	Petsel Pty Limited	12,393,221	4.11%
5	Bond Street Custodians Limited	12,350,000	4.10%
6	ABN AMRO Clearing Sydney Nominees Pty Ltd	9,191,384	3.05%
7	Mr Xueren Ma	7,300,000	2.42%
8	Tamba Investments Pty Ltd	6,586,429	2.19%
9	Mr Brendan John Joyce	6,040,000	2.00%
10	Mr Stephen Michael Bonnor	5,255,685	1.74%
	<b>Top 10 Shareholders</b>	<b>164,589,171</b>	<b>54.60%</b>
	<i>Other Shareholders</i>	<i>136,833,963</i>	<i>45.40%</i>
	<b>Total Issued Capital</b>	<b>301,423,134</b>	<b>100.00%</b>

Source: Annual Report

## 7.4 Share Price History

The following graph illustrates the price and volume of Quay Magnesium shares for the two years to 8 October 2010.



Source: Capital IQ

We note that prior to the above period, Quay Magnesium shares have traded at higher values. In our opinion, prior periods are not reflective of the current financial position and financial performance of Quay Magnesium.

Summarised below is the share trading history for Quay Magnesium shares for one year on a monthly basis.

Quay Magnesium						
Share Trading History - Monthly for One Year						
Month end	Share Price (cents)			Volume Traded		VWAP (cents)
	Close	High	Low	Total	% on Issue	
31/10/2009	2.200	2.600	1.800	3,957,280	1.803%	2.045
30/11/2009	2.000	2.200	1.900	5,779,840	2.633%	2.016
31/12/2009	2.500	2.500	1.800	5,329,670	2.428%	2.065
31/01/2010	3.200	3.200	2.300	856,210	0.369%	2.774
28/02/2010	1.800	3.300	1.800	1,862,650	0.730%	2.259
31/03/2010	2.000	2.600	1.800	805,440	0.316%	1.919
30/04/2010	1.800	2.200	1.800	1,649,240	0.647%	1.893
31/05/2010	1.500	2.200	1.000	4,187,930	1.635%	1.608
30/06/2010	1.700	2.200	1.500	10,282,000	3.999%	2.002
31/07/2010	1.800	1.800	1.300	618,420	0.240%	1.687
31/08/2010	1.200	1.800	1.200	1,699,220	0.661%	1.326
30/09/2010	1.200	1.500	1.200	3,563,880	1.386%	1.343

Source: Capital IQ

### Share trading observations

As seen above, Quay Magnesium shares have traded between 1.20 cents and 1.80 cents during the period July to October 2010. On 8 October 2010, Quay Magnesium's share price closed at 1.30 cents. Quay Magnesium's monthly VWAP ranged between 1.33 cents and 2.77 cents during the 12 months prior to 30 September 2010 and its shares traded as low as 1.00 cents and as high as 3.30 cents during this period.

The majority of the abnormal trading volume in June 2010 relates to trading on 23 June 2010, which totalled 7,951,455. This date corresponds with an ASX announcement that Quay Magnesium Director, Peter Stuntz, had acquired 435,080 shares through indirect interests.

### Liquidity observations

During the 12 month period to 30 September 2010:

- Quay Magnesium shares did not trade for approximately 51% of the trading days; and
- the traded volume of Quay Magnesium shares on an average monthly basis was only 3.24 million shares, or just 1.32% of the average free float issued capital<sup>17</sup>.

Based on the above observations, we consider Quay Magnesium shares to be relatively illiquid. In addition to this, we note that for the 12 months to 30 September 2010, Quay Magnesium has had to raise additional capital to fund its deteriorating net asset position during this time.

## **7.5 Share Placements**

The table below summarises Quay Magnesium's share placements since 1 January 2008, excluding Employee Share Schemes ("ESS").

<b>Quay Magnesium Share Placements</b>			
<b>Date</b>	<b>Funds Raised (\$)</b>	<b>Number of Shares</b>	<b>Price (cents)</b>
Apr-08	1,330,000	26,600,000	5.00
Jun-08	983,881	19,677,623	5.00
Sep-09	510,000	34,000,000	1.50
Jan-10	250,000	12,500,000	2.00
Jan-10	460,000	23,000,000	2.00

*Source: Annual Reports*

<sup>17</sup> Excluding shares held by Quay Directors

## 8 Valuation Methodology

### 8.1 Overview

The best determinant of value is the price at which the business, a comparable business or an equity interest in that business has been bought or sold in an arm's length transaction. In its absence, estimates of value are made using methodologies that infer value from other available evidence.

In order to calculate the fair market value of the Quay Magnesium shares, we have considered the generally accepted valuation methodologies set out below.

### 8.2 Asset Based Methods

Asset based methods estimate the market value of a company's shares based on the realisable value of its identifiable net assets. Asset based methods include:

- net tangible assets;
- orderly realisation of assets; and
- liquidation of assets.

The **net tangible assets method** is based on the value of the assets of the business less certain liabilities, at book values, adjusted to market value.

The **orderly realisation of assets method** estimates fair market value by determining the amount that would be distributed to Shareholders assuming the company is wound up in an orderly manner realising a reasonable market value for the assets.

The **liquidation of assets method** is similar to the orderly realisation of assets method except for the fact that the liquidation of assets method assumes the assets are sold in a shorter period, under a "distressed seller" scenario.

These approaches ignore the possibility that a company's value could exceed the realisable value of its assets. Asset based methods are appropriate when companies are not profitable, not actively trading or a significant proportion of a company's assets are liquid.

### 8.3 Market Based Methods

Market based methods estimate a company's fair market value by considering the market price of transactions in its shares or the market value and valuation metrics of comparable companies and transactions. Market based methods include:

- capitalisation of maintainable earnings;
- analysis of a company's recent share trading history; and
- industry specific methods.

The **capitalisation of maintainable earnings method** estimates fair market value by multiplying the company's future maintainable earnings by an appropriate capitalisation earnings multiple. An appropriate earnings multiple is derived from price earnings multiples and market transactions involving comparable companies. The capitalisation of maintainable earnings method is appropriate where the company's earnings are relatively stable and comparable companies have similar cost structures and growth profiles.

The **most recent share trading history** provides strong evidence of the fair market value of the shares in a company where they are publicly traded in an informed and liquid market.

**Industry specific methods** estimate market value using industry benchmarks. These methods generally provide less persuasive evidence on the market value of a company as they may not account for company specific factors. Industry specific methods should only be used as a cross check to the primary valuation methodology.

#### **8.4 Discounted Cash Flow Method**

The discounted cash flow method estimates market value by discounting a company's future cash flows to their present value. This method is appropriate where a projection of future cash flows can be made with a reasonable degree of confidence for a period of at least five years or for projects with finite lives. The discounted cash flow method is commonly used to value early stage companies or projects with a finite life.

#### **8.5 Selection of Methodologies**

In selecting our methodology, we have considered the following:

- the nature of the Proposed Transaction;
- specific characteristics of the operations of Quay Magnesium, including that production is below economical volumes, the volatility of magnesium prices and Quay Magnesium's lack of reliable long term supply contracts;
- difficult trading conditions facing the industry, specifically the automotive sector;
- the loss making nature of Quay Magnesium;
- the poor financial position of Quay Magnesium and requirement for continued funding;
- availability and reliability of forecast cash flow information; and
- access to publicly available valuation benchmarks, comparable company information and comparable company transactions.

Due to the loss making history of Quay Magnesium and the absence of sufficient cash flow forecasts, we were not able to utilise the capitalisation of future maintainable earnings or discounted cash flow methodologies.

We adopted a net assets methodology as our primary valuation methodology which we cross-checked to Quay Magnesium's recent share trading history and the price at which recent share placements were made.

In our opinion, the best indicator of the fair market value of Quay Magnesium is an asset based methodology due to:

- the significant level of fixed assets held by the Company;
- the historical poor performance of the business; and
- uncertainty around future performance.

We selected our cross-check methodologies on the basis that they both provide evidence of actual transactions involving Quay Magnesium shares.

## 9 Valuation of Quay Magnesium

### 9.1 Approach

As detailed in Section 5.4.1, we assessed the value of Quay Magnesium shares under three scenarios, being:

- **Scenario 1:** the value of Quay Magnesium shares on a controlling basis if the Proposed Transaction does not proceed;
- **Scenario 2:** the value of Quay Magnesium shares on a minority basis if the Proposed Transaction does proceed and the options issued to Clever Talent Group are not exercised; and
- **Scenario 3:** the value of Quay Magnesium shares on a minority basis if the Proposed Transaction does proceed and the options issued to Clever Talent Group are exercised. Under Scenario 3, we adopted a range of exercise scenarios, being immediate exercise and exercise on expiry (3 years), as this represents the range of potential exercise by Clever Talent Group and also the range of valuation impacts should the options be exercised.

### 9.2 Scenario 1 – Value if the Proposed Transaction does not proceed

#### 9.2.1 Background

The notes to the financial statements contained in Quay Magnesium's Annual Report for the year ended 30 June 2010 outline uncertainty as to the ability of Quay Magnesium to continue trading as a going concern without:

- an equity raising;
- further external finance; and
- the achievement of positive cash flow of the Nanjing operation.

The Proposed Transaction provides a current source of equity, but does not guarantee further external finance, including by way of the exercise of the options to be issued under the Proposed Transaction. Additionally, Quay Magnesium is not cash flow positive and based on current production volumes Management does not expect the business to become cash flow positive in the short term.

#### 9.2.2 Valuation Approach

In forming our view on the value of Quay Magnesium shares if the proposed transaction does not proceed, we considered the following factors:

- uncertainty of being able to continue as going concern as outlined above;
- existing cash burn of approximately \$900,000 per quarter, resulting in an estimated cash balance at the date of this Report of less than \$200,000, that implies less than one month's available cash as at the date of this Report;
- additional expected cash requirements beyond the date of this Report;
- Quay Magnesium has fully drawn down its total working capital and factoring facilities to RMB 28.8 million (as detailed in Section 7.2.3);
- no other known alternative financing options are available to Quay Magnesium;
- the cash flow break-even production volume is more than two times current production volumes and hence Management do not expect Quay Magnesium to become cash flow positive in the short term;

- the specialised nature of the buildings, plant and equipment of Quay Magnesium that are specific to Quay Magnesium and likely to be of significantly less value to other parties. Management have advised that a very limited number of parties would derive any use from Quay Magnesium's highly specialised furnaces, buildings and production machinery and that the alternative realisable value is scrap value; and
- As noted in Section 7.2.3, Quay Magnesium does not own the land on which it operates. The operational premises in Nanjing, China are subject to a 99 year lease, entered into during 2004, and carry restrictions whereby Quay Magnesium cannot use the land for any new purpose without first obtaining Nanjing Hi-tech Development Zone approval.

Based on the above factors, we are of the opinion that the most appropriate valuation methodology for Scenario 1 is the realisable value of the assets of Quay Magnesium under a forced sale or liquidation scenario.

### **9.2.3 Valuation Conclusion**

Excluding fixed assets and interest bearing debt, the assets and liabilities of Quay Magnesium as at 30 June 2010, adjusted for the estimated cash burn to 30 September 2010 and movement in the AUD/RMB exchange rate, is approximately \$800,000.

Due to the factors listed in Section 9.2.2 above and:

- the cost associated with selling the assets;
- decommissioning costs associated with Quay Magnesium's buildings, plant and equipment, particularly furnaces and production machinery;
- the cost of appointing an administrator;
- legal costs; and
- employee redundancy costs;

we are of the opinion that the realisable value of the fixed assets and other net assets are unlikely to be sufficient to repay the interest bearing debt of Quay Magnesium and cover the various costs outlined above and in Section 9.2.2. In our opinion, at best, there may be a nominal residual value for shareholders.

Accordingly, we have assessed that value of Quay Magnesium if the Proposed Transaction does not proceed, to be of nil or nominal value.

## **9.3 Scenario 2 – Value if the Proposed Transaction does proceed and the options are not exercised**

### **9.3.1 Valuation Approach**

Based on the \$2 million in capital to be raised under the Proposed Transaction, in our opinion, Quay Magnesium can continue to operate as a going concern. In our opinion, on this basis, the most appropriate valuation methodology is the net assets methodology.

The capitalisation of future maintainable earnings methodology and discounted cash flow methodology were not appropriate due to the losses generated historically and lack of available forecast information.

As a cross-check to our primary valuation methodology we have reviewed Quay Magnesium's recent share trading history and prior share placements.

### 9.3.2 Net Asset Value

We adopted the balance sheet of Quay Magnesium as at 30 June 2010 and made certain adjustments to estimate the net asset value of Quay Magnesium as at 30 September 2010 to be between 1.288 cents per share and 2.043 cents per share. The calculated valuation range is reasonably wide due to the sensitivities applied to foreign currency in our valuation. We are of the opinion that a wide range of sensitivities is appropriate given the recent appreciation and volatility of the AUD against the RMB.

We note that draft financial statements as at 30 September 2010 were not available as at the date of this Report. Accordingly, the values below represent an estimate of the movement since 30 June 2010 based on discussions with Management.

Quay Magnesium						
Estimated Net Asset Value as at 30 September 2010						
	Notes	As at 30 Jun 2010	Adjustments		Assessed Value	
			Low	High	Low	High
Cash and cash equivalents	1	1,103	1,100	1,100	2,203	2,203
Trade and other receivables	2	2,215	(408)	(7)	1,807	2,208
Inventories	2	963	(177)	(3)	786	960
Other current assets		38	-	-	38	38
Property, plant & equipment	3	13,490	(4,010)	(1,904)	9,480	11,586
<b>Total assets</b>		<b>17,809</b>			<b>14,314</b>	<b>16,995</b>
Trade and other payables	2	2,452	(7)	(452)	2,445	2,000
Employee benefits		56	-	-	56	56
Loans and borrowings	2	4,962	(15)	(914)	4,947	4,048
<b>Total liabilities</b>		<b>7,470</b>			<b>7,448</b>	<b>6,104</b>
<b>Net assets</b>		<b>10,339</b>			<b>6,866</b>	<b>10,891</b>
Number of shares on issue					426,423,134	426,423,134
<b>Net assets per share (controlling basis)</b>	<i>(cents)</i>				<b>1.610</b>	<b>2.554</b>
Less: Minority discount	4				20%	20%
<b>Net assets per share (minority basis)</b>	<i>(cents)</i>				<b>1.288</b>	<b>2.043</b>

Notes:

1. From discussions with Management and our review of quarterly historical and forecast net cash flows, we estimated the cash burn for the quarter to be \$900,000. The adjustment to cash comprises the \$2 million to be raised under the Proposed Transaction less the estimated cash burn of \$900,000.
2. Management advised that no material movement was expected in the RMB value of the following items from 30 June 2010 to the date of this Report:
  - a. Trade and other receivables;
  - b. Inventories;
  - c. Trade and other payables; and
  - d. Loans and borrowings.

In the absence of draft financial statements, we adopted the RMB balance of the above items as at 30 June 2010 and adjusted these for the movement in the AUD/RMB exchange rate to 30 September 2010. We note that the AUD appreciated by approximately 12% against the RMB during the period 30 June 2010 to 30 September 2010.

We calculated our low values by applying a 10% premium to the AUD/RMB exchange rate at 30 September 2010, and our high values by deducting a 10% discount from the AUD/RMB exchange rate. This approach provides a sensitivity analysis around the balances.

3. Similar to above, we adopted the RMB the balance of property, plant and equipment as at 30 June 2010 and adjusted for the movement in the AUD/RMB exchange rate to 30 September 2010, including exchange rate sensitivities. We also deducted estimated depreciation for the quarter based on discussions with Management.
4. The value of 100% of the assets of Quay Magnesium represents a controlling valuation. Since we are valuing Quay Magnesium on a minority basis, we have applied a minority discount of 20%.

In support of this approach, we note that a minority discount of 20% mathematically represents a control premium of 25%<sup>18</sup>. We also note that premiums for control in Australia tend to fall within the range of 20% to 35%<sup>19</sup>. Accordingly, we adopted a control premium of 25% as implicit in the value of 100% of the assets of Quay Magnesium and used this to calculate a minority discount of 20%.

### 9.3.3 Cross-check: Recent Share Trading History

Notwithstanding that the trading of Quay Magnesium's is relatively illiquid, as detailed in Section 7.4, recent share trading history provides evidence of transactions involving Quay Magnesium shares.

As our valuation range falls within the range of values at which Quay Magnesium shares have traded on the ASX within the last 12 months, particularly the last three to six months, we are of the opinion that Quay Magnesium's share trading history supports our primary valuation.

Quay						
Share Trading Activity Prior to Announcement						
To 10-Sep-10	Share Price (cents)			Volume Traded		VWAP (cents)
	Close	High	Low	Total	% on Issue	
10-Sep-10	1.400	1.400	1.400	400,000	0.133%	1.400
1 week	1.400	1.400	1.200	963,880	0.375%	1.366
1 month	1.400	1.500	1.200	2,240,060	0.871%	1.307
3 month	1.400	2.200	1.200	11,857,270	4.611%	1.840
6 month	1.400	2.200	1.000	19,543,820	7.622%	1.809
9 month	1.400	3.300	1.000	22,444,180	8.819%	1.878
12 month	1.400	3.500	1.000	37,378,120	15.383%	1.991

<sup>18</sup> Example -  $\$100 \times (1 + 25\%) = \$125$ ,  $\$125 / (1 - 20\%) = \$100$

<sup>19</sup> 'Applied Valuation', Masters of Applied Finance, Kaplan Professional/ FINSIA

#### **9.3.4 Cross-check: Prior Share Issues & Placements**

As an additional cross-check to our primary valuation methodology we reviewed prior share issues and placements.

Specifically, we note the following minority share issues:

- Quay Magnesium issued shares to employees at 2 cents per share under the Company's Employee Share Scheme ("ESS") on 18 August 2009;
- Quay Magnesium placed its first tranche of shares with Central Turbo at 1.5 cents per share on 31 December 2009;
- Quay Magnesium issued shares to employees at 2 cents per share under the Company's ESS on 31 December 2009;
- Quay Magnesium issued shares to Mr Ean Zhao at 2 cents per share on 31 December 2009; and
- Quay Magnesium placed a second tranche of shares with Central Turbo at 2 cents per share on 27 January 2010. This placement brought Central Turbo's and Mr Fan's effective total shareholding in Quay Magnesium to 18.58%, and accordingly, reflected a minority valuation.

The range of prices at which Quay Magnesium have issued and placed shares since August 2009 falls within our primary valuation range. In our opinion, this supports our primary valuation.

#### **9.4 Scenario 3 – Value if the Proposed Transaction does proceed and the options are exercised**

##### **9.4.1 Valuation Approach**

If the Proposed Transaction proceeds and the options are exercised, Quay Magnesium will receive \$3.75 million in exercise proceeds and will issue a further 125,000,000 shares.

Accordingly, in assessing the value to shareholders under Scenario 3, we have added the present value of the exercise proceeds to the net asset value determined under Scenario 2 and included the impact of the additional shares to be issued.

##### **9.4.2 Present Value of Exercise Proceeds**

We calculated the present value of the exercise proceeds in the event that Clever Talent Group exercises its options under the Proposed Transaction, as detailed below. Our calculations are based on a high and a low scenario, being exercise either immediately or on expiry (in three years), as this represents the range of exercise opportunities and valuation outcomes should the options be exercised.

Quay Magnesium Present Value of Option Exercise Proceeds					
		Immediate Exercise		Exercise in 3 Years	
		Low	High	Low	High
Number of options	(000s)	125,000	125,000	125,000	125,000
Exercise price	(cents)	3.000	3.000	3.000	3.000
Proceeds on exercise of options	(\$000s)	3,750	3,750	3,750	3,750
Discount rate	(%)	24.0%	20.4%	24.0%	20.4%
No. of years		-	-	3	3
Discount factor		1.000	1.000	0.524	0.573
<b>Present value of exercise proceeds</b>	(\$000s)	<b>3,750</b>	<b>3,750</b>	<b>1,965</b>	<b>2,149</b>

The discount rate we adopted above is the calculated cost of equity for Quay Magnesium as detailed at Appendix 3.

Cost of equity is the appropriate discount rate since we are calculating the valuation impact of the exercise of options to shareholders.

#### 9.4.3 Valuation Conclusion

Based on the assumed exercise of options, we calculated the value of Quay Magnesium shares to be in the range of 1.601 cents per share and 2.655 cents per share as detailed below:

Quay Magnesium Value per Share					
		Immediate Exercise		Exercise in 3 Years	
		Low	High	Low	High
<b>Value assuming exercise of options (\$000s)</b>					
Adjusted net assets		6,864	10,891	6,864	10,891
PV of proceeds from exercise of options		3,750	3,750	1,965	2,149
<b>Total value after exercise of options</b>		<b>10,614</b>	<b>14,641</b>	<b>8,829</b>	<b>13,040</b>
<b>Shares Outstanding (000s)</b>					
Current shares outstanding		301,423	301,423	301,423	301,423
Placement of shares under Proposed Transaction		125,000	125,000	125,000	125,000
Shares outstanding after share issue		426,423	426,423	426,423	426,423
Issue of shares on exercise of options		125,000	125,000	125,000	125,000
<b>Shares outstanding after exercise of options</b>		<b>551,423</b>	<b>551,423</b>	<b>551,423</b>	<b>551,423</b>
<b>Value per Share (cents)</b>					
<b>Value per share assuming exercise of options</b>		<b>1.925</b>	<b>2.655</b>	<b>1.601</b>	<b>2.365</b>

## 10 Evaluation of the Proposed Transaction

### 10.1 Summary Conclusion

In our opinion the Proposed Transaction is fair and reasonable for the non-associated shareholders of Quay Magnesium. Our approach to forming this conclusion and our reasons are set out below.

### 10.2 Approach

In forming our opinion on whether or not the terms of the Proposed Transaction are fair and reasonable for Quay Magnesium's non-associated shareholders, we have compared:

- our assessment of the value of Quay Magnesium shares before the Proposed Transaction on a controlling basis;
- our assessment of the value of Quay Magnesium shares after the Proposed Transaction on a minority basis; and
- the likely advantages and disadvantages of the terms of the Proposed Transaction for Quay Magnesium and its non-associated shareholders.

In assessing if the Proposed Transaction is fair, we assessed the value of Quay Magnesium shares under three scenarios, being:

- **Scenario 1:** the value of Quay Magnesium shares on a controlling basis if the Proposed Transaction does not proceed;
- **Scenario 2:** the value of Quay Magnesium shares on a minority basis if the Proposed Transaction does proceed and the options issued to Clever Talent Group are not exercised; and
- **Scenario 3:** the value of Quay Magnesium shares on a minority basis if the Proposed Transaction does proceed and the options issued to Clever Talent Group are exercised.

In assessing if the Proposed Transaction is reasonable we first considered whether the Proposed Scheme is fair. Additionally, we compared the potential advantages and disadvantages to the non-associated shareholders of Quay Magnesium should the Proposed Transaction proceed, compared to those should it not proceed, and determined whether the advantages outweigh the disadvantages.

### 10.3 The Proposed Transaction is Fair for the non-associated shareholders

Since the assessed value per share of Quay Magnesium if the Proposed Transaction does proceed, under both Scenario 2 and Scenario 3, is greater than the assessed value per share of Quay Magnesium if the Proposed Transaction does not proceed (Scenario 1), we have assessed the Proposed Transaction to be fair for the non-associated shareholders of Quay Magnesium, as detailed below.

Quay Magnesium Fairness Assessment		
Comparison of Scenario 1 to Scenario 2	Low	High
Value per share if the Proposed Transaction does not proceed	nil	nominal
Value per share if the Proposed Transaction does proceed and the options are not exercised	1.288	2.043
<b>Assessment</b>	<b>Fair</b>	<b>Fair</b>
Comparison of Scenario 1 to Scenario 3	Low	High
Value per share if the Proposed Transaction does not proceed	nil	nominal
Value per share if the Proposed Transaction does proceed and the options are exercised	1.601	2.655
<b>Assessment</b>	<b>Fair</b>	<b>Fair</b>

#### **10.4 The Proposed Transaction is Reasonable for the non-associated shareholders**

Pursuant to ASIC Regulatory Guide 111, an offer is reasonable if it is fair. Accordingly, we have concluded that the offer is reasonable.

Notwithstanding the above, in forming our assessment of the reasonableness of the offer, we have compared the advantages and disadvantages of the Proposed Transaction, as detailed below.

##### **10.4.1 Advantages to non-associated shareholders from the Proposed Transaction**

The primary advantages to the non-associated shareholders of Quay Magnesium in proceeding with the Proposed Transaction are as follows:

- ***Immediate access to working capital***

Based on the cash burn from 30 June 2010 to the date of this Report, there are limited funds for Quay Magnesium to continue operating. The Proposed Transaction provides Quay Magnesium with immediate access to \$2 million in working capital.

- ***Ability to continue operating as a going concern***

The Proposed Transaction provides Quay Magnesium with necessary funding to continue operating as a going concern. Without this or an alternative source of funding in the short term, there is uncertainty around the ability of Quay Magnesium to continue trading as a going concern.

- ***Potential access to future funding***

Future exercise of the options to be issued to Clever Talent Group under the Proposed Transaction would provide a further \$3.75 million in cash. Shareholders should note that approval of the Proposed Transaction and issue of the options to Clever Talent Group is not a guarantee of this future funding since the exercise of the options is at the discretion of Clever Talent Group.

- ***Ability to continue pursuing a reliable source of feedstock with parties associated with Mr Fan***

The funding provided under the Proposed Transaction gives Quay Magnesium the ability to continue its pursuit for a reliable source of feedstock. This is critical to the future success of Quay Magnesium and has been the key focus of the corporate strategy over the past several years.

A Chinese Group associated with Mr Fan is in the process of developing a raw magnesium plant. If development is successful, the Directors of Quay Magnesium have advised the Chinese Group plans to utilise Quay Magnesium's manufacturing facility.

The Chinese Group is the same party that recently failed to meet legal due diligence standards around land use rights. Notwithstanding this, Management believe the due diligence issues may be resolved and an arrangement potentially reached before the end of the 2010 calendar year, which would improve Quay Magnesium's future operating position.

- ***Ability to pursue a reliable source of feedstock with other parties***

In the absence of a successful transaction with the Chinese Group associated with Mr Fan, the funding provided under the Proposed Transaction gives Quay Magnesium the ability to continue to pursue similar opportunities with other parties.

- **Potential strategic operational benefits associated with Mr Fan**

Potential to realise additional strategic benefits associated with the relationship with Mr Fan, such as the potential introduction to new customers and new areas of business.

- **There are no viable present alternatives**

The Directors of Quay Magnesium advise that as at the date of this Report, there are no viable present alternatives to the Proposed Transaction.

- **Unlikely to raise additional funding should the Proposed Transaction not proceed**

Quay Magnesium may find it difficult to raise additional funding given its poor historical performance, the depressed state of capital markets and particularly the poor performance of the automotive industry in which it operates. As at the date of this Report, we are aware of no material alternative committed sources of funding available to Quay Magnesium.

- **The Directors of Quay Magnesium intend to vote in favour of the Proposed Transaction**

The Directors of Quay Magnesium have advised that they consider the Proposed Transaction is in the best interest of Quay Magnesium shareholders and will be voting in favour of the Proposed Transaction.

- **The Proposed Transaction has been negotiated on arm's length terms**

We understand that the terms of the Proposed Transaction were developed through a series of negotiations between the parties and their advisers. Accordingly, we are of the opinion that this indicates that the terms were determined on an arm's length basis and reflect market conditions.

- **Lower expected share price if the Proposed Transaction does not proceed**

In the event that the Proposed Transaction does not proceed, we note we assessed the value of Quay Magnesium shares to be nil or nominal.

#### **10.4.2 Disadvantages to non-associated shareholders from the Proposed Transaction**

The primary disadvantages to the non-associated shareholders of Quay Magnesium in proceeding with the Proposed Transaction are as follows:

- **Need for further capital**

Whilst approval of the Proposed Transaction addresses the immediate capital needs of the Company, there is no guarantee with regards to future funding, including with respect to the issue of options. At the current rate of cash burn, the \$2 million raised under the Proposed Share Issue would provide around 6 to 9 months worth of funding. Although the exercise of the options would result in \$3.75 million in additional cash, exercise of the options would be at the discretion of Clever Talent Group.

- **Introduction of a controlling shareholder**

The Proposed Transaction will result in Mr Fan effectively controlling Quay Magnesium going forward. This will be achieved by Mr Fan becoming a 42.45% shareholder on an undiluted basis, or a 55.49% shareholder on a diluted basis, as well as his ability to appoint three out of five Directors to the Board of Quay Magnesium. In contrast to this, Quay Magnesium is currently reasonably widely held, with the largest existing shareholder holding less than 20% of the Company and the Top 10 largest shareholders holding less than 55% of the Company.

- ***Non-associated shareholders may expect a superior alternate offer will emerge***

Quay Shareholders may consider that a third party may emerge with a superior alternate offer. At the date of this Report, no alternative offer has been received and the Directors believe it is highly unlikely that this will occur. The fact that the current share price is trading below the subscription price under the Proposed Transaction indicates the market does not expect a higher alternate offer to emerge.

- ***Dilution of interests of non-associated shareholders***

If the Proposed Transaction proceeds, the interests of non-associated shareholders will be diluted by approximately 23.9% based on the Proposed Share Issue only, and by 36.91% should Clever Talent Group exercise the options issued to it under the Proposed Transaction.

- ***Shareholders may believe that Quay Magnesium shares will trade at a higher price within the foreseeable future***

Quay Magnesium Shareholders may believe that the assets and business performance of Quay Magnesium will lead to a share price increase within the foreseeable future. In the event that the Proposed Transaction does not proceed, we note we assessed the value of Quay Magnesium shares to be nil or nominal.

- ***Lead time associated with positive outcomes from acquisitions***

There may be a significant lead time to positive outcomes from proposed acquisitions, or the incremental impact of these acquisitions may even be negative.

- ***Mr Fan will become the controlling shareholder of Quay Magnesium and is also associated with the Chinese Group the Quay Magnesium is attempting to acquire***

Should the Proposed Transaction proceed, Mr Fan will be a controlling shareholder in Quay Magnesium. We note that Mr Fan is also associated with one of Quay Magnesium's acquisition targets. This may impact the arms length nature of future transactions with any such parties.

## **11 Qualifications, Declarations & Consents**

### **11.1 Qualifications**

WHK Horwath Corporate Finance provides corporate finance services in relation to mergers and acquisitions, capital raisings, corporate restructuring and financial matters generally. One of its activities is the preparation of company and business valuations and the provision of independent advice and expert reports concerning mergers and acquisitions, takeovers and capital reconstructions.

The executives responsible for preparing this Report on behalf of WHK Horwath Corporate Finance are Brad Higgs, B.Bus, CA, F.Fin and Andrew Fressl, B.Com, CA, F.Fin. Brad and Andrew have significant experience in relevant corporate advisory matters. Both are Representatives in accordance with the Australian Financial Services Licence No. 239170 held by WHK Horwath Corporate Finance Limited under the Corporations Act 2001 (Cth).

### **11.2 Disclaimers**

It is not intended that this Report be used or relied upon for any purpose other than as an expression of WHK Horwath Corporate Finance's opinion as to whether the Proposed Transaction is fair and reasonable for the non-associated shareholders of Quay Magnesium. WHK Horwath Corporate Finance expressly disclaims any liability to any person who relies or purports to rely on the Report for any other purpose and to any other party who relies or purports to rely on the Report for any purpose.

This Report has been prepared by WHK Horwath Corporate Finance with care and diligence and statements and opinions given by WHK Horwath Corporate Finance in this Report are given in good faith and in the belief on reasonable grounds that such statements and opinions are correct and not misleading. However, no responsibility is accepted by WHK Horwath Corporate Finance or any of its officers or employees for errors or omissions however arising in the preparation of this Report, provided that this shall not absolve WHK Horwath Corporate Finance from liability arising from an opinion expressed recklessly or in bad faith.

### **11.3 Declarations**

This engagement has been conducted in accordance with professional standard APES 225 Valuation Services issued by the Accounting Professional and Ethical Standards Board Limited ("**APESB**").

WHK Horwath Corporate Finance does not have at the date of this Report nor had any Shareholding in or other relationship with Quay Magnesium, Clever Talent Group, Central Turbo or Mr Fan that could reasonably be regarded as capable of affecting its ability to provide an unbiased opinion in relation to the Proposed Transaction. WHK Horwath Corporate Finance had no part in the formulation of the Proposed Transaction. Its only role has been the preparation of this Report. WHK Horwath Corporate Finance considers itself independent in terms of Regulatory Guide 112 issued by ASIC on 30 October 2007.

WHK Horwath Corporate Finance will receive a fee based on time costs of approximately \$30,000 (plus GST). This fee is not contingent on the outcome of the Proposed Transaction. WHK Horwath Corporate Finance will receive no other benefit for the preparation of this Report.

Quay Magnesium has agreed that to the extent permitted by law that it will indemnify WHK Horwath Corporate Finance employees and officers in respect of any liability suffered or incurred as a result of or arising out of the preparation of this Report. This indemnity will not apply in respect of any conduct involving negligence or wilful misconduct. Quay Magnesium has also agreed to indemnify WHK Horwath Corporate Finance and its employees and officers for time spent and reasonable legal costs and expenses incurred in relation to any inquiry or proceeding initiated by any person except where WHK Horwath Corporate Finance or its employees and officers are found liable for or guilty of conduct involving negligence or wilful misconduct in which case WHK Horwath Corporate Finance shall bear such costs.

Advance drafts of this Report (and parts of it) were provided to Quay Magnesium and its advisers. Certain changes were made to this Report as a result of the circulation of the draft Report. There was no alteration to the methodology, valuation of the business operations of Quay Magnesium, conclusions or recommendations made to the non-associated shareholder of Quay Magnesium as a result of issuing the drafts.

#### **11.4 Consents**

WHK Horwath Corporate Finance consents to the issuing of this Report in the form and context in which it is to be included in the Proposed Transaction documentation to be sent to Quay Magnesium Shareholders. Neither the whole nor any part of this Report nor any reference thereto may be included in any other document without the prior written consent of WHK Horwath Corporate Finance as to the form and context in which it appears.

## **Appendix 1 – Financial Services Guide**

*Date of Issue: 3 October 2008*

The Corporations Act 2001 requires WHK Horwath Corporate Finance to provide this Financial Services Guide (“**FSG**”) in connection with its preparation and provision of an Independent Expert’s Report which is included in the Explanatory Memorandum and Notice of Meeting provided to members of Quay Magnesium Limited by the company or other entities (“**Entity**”).

The matters covered by the FSG include:

- who we are and how we can be contacted;
- what services and types of products we are authorised to provide;
- how we are remunerated;
- independence; and
- complaints handling.

### ***WHK Horwath Corporate Finance & Contacts***

WHK Horwath Corporate Finance carries on business at Level 15, 309 Kent Street, Sydney NSW 2000. WHK Horwath Corporate Finance holds an Australian Financial Services Licence (No. 239170). WHK Horwath Corporate Finance is a public company and is a wholly owned subsidiary of WHK Group Limited. WHK Group Limited is a listed Australian company (ASX code WHG) and provides services primarily in accounting, tax, audit, business and corporate advisory and wealth management.

### ***Services***

We are authorised to:

- provide financial product advice for securities and derivatives; and
- deal in a financial product by applying for, acquiring, varying or disposing of a financial product on behalf of another person in respect of securities and derivatives to wholesale and retail clients.

WHK Horwath Corporate Finance does not provide any personal retail financial product advice to retail investors nor does it provide market-related advice to retail investors.

For the specific purposes of preparing and providing the Independent Expert’s Report, WHK Horwath Corporate Finance has not and does not accept instructions from retail clients, and has not and will not receive any remuneration from retail clients.

The preparation and provision of this Independent Expert’s Report is known as “general” advice because it does not take into account your personal objectives, financial situation or needs. You should consider whether the general advice contained in our Report is appropriate for you, having regard to your own personal objectives, financial situation or needs.

### ***Remuneration***

When providing Reports, WHK Horwath Corporate Finance’s client is the Entity to which it provides the Report. WHK Horwath Corporate Finance receives its remuneration from the Entity. In respect of the Report for Quay, WHK Horwath Corporate Finance will receive a fixed fee for the preparation of the Report.

No related body corporate of WHK Horwath Corporate Finance, or any of the officers or employees of WHK Horwath Corporate Finance or of any of those related bodies or any associate receives any remuneration or other benefit attributable to the preparation and provision of the Report.

### **Independence**

WHK Horwath Corporate Finance is required to be independent of the Entity in order to provide a Report. The guidelines for independence in the preparation of Reports are set out in Regulatory Guide 112 issued by the Australian Securities and Investments Commission on 30 October 2007.

The following information in relation to the independence of WHK Horwath Corporate Finance is stated in Section 11 of the Report:

*“WHK Horwath Corporate Finance does not have at the date of this Report nor had any shareholding in or other relationship with Quay Magnesium, Clever Talent Group, Central Turbo or Mr Fan that could reasonably be regarded as capable of affecting its ability to provide an unbiased opinion in relation to the Proposed Transaction. WHK Horwath Corporate Finance had no part in the formulation of the Proposed Transaction. Its only role has been the preparation of this Report. WHK Horwath Corporate Finance considers itself independent in terms of Regulatory Guide 112 issued by ASIC on 30 October 2007.*

*WHK Horwath Corporate Finance will receive a fee based on time costs of approximately \$30,000 (plus GST). This fee is not contingent on the outcome of the Proposed Transaction. WHK Horwath Corporate Finance will receive no other benefit for the preparation of this Report.”*

### **Complaints Handling**

WHK Horwath Corporate Finance has internal complaints-handling mechanisms which are designed to facilitate responses to your complaints fairly and quickly. Please address your complaint in writing to:

Head of Compliance  
WHK Horwath Corporate Finance Limited  
Level 15, 309 Kent Street  
SYDNEY NSW 2000

WHK Horwath Corporate Finance is only responsible for the Report and this FSG. Complaints or questions about the Scheme Implementation Agreement should not be directed to WHK Horwath Corporate Finance which is not responsible for that document. WHK Horwath Corporate Finance will not respond in any way that might involve any provision of financial product advice to any retail investor.

WHK Horwath Corporate Finance is a member of the Financial Ombudsman Service (member number 11689) which provides free advice and assistance to consumers to help them resolve complaints relating to members of the financial services industry. Complaints may be submitted by phone on 1300 780 808 or in writing to:

Financial Ombudsman Service  
GPO Box 3  
MELBOURNE VIC 3001

We confirm that in compliance with Section 912B of the Corporations Act 2001(Cth) and ASIC RG 126, we maintain professional indemnity insurance to cover the financial products and services we provide, including any claims in relation to the conduct of our former representatives / employees.

## **Appendix 2 – Sources of Information**

Sources of information include but are not limited to:

- Subscription Agreement, dated 13 September 2010;
- Variation to the Subscription Agreement, dated 13 September 2010;
- ASX Announcements related to the Proposed Transaction;
- Draft Notice of Meeting;
- Annual Reports of Quay Magnesium;
- Management Accounts for the year ended 30 June 2010;
- Appendix 4C's for the year ended 30 June 2010;
- Details of production volumes during the years ended 30 June 2008 to 2010;
- Reconciliation of share issues;
- Various reconciliations supporting the Financial Statements;
- Cash Flow Projections as at 30 June 2010;
- Financial and capital market research from CapitalIQ, [www.capitaliq.com.au](http://www.capitaliq.com.au); and
- Discussions with Management and Directors of Quay Magnesium.

## Appendix 3 – Cost of Equity

### Background

We calculated cost of equity based on the Capital Asset Pricing Model (“**CAPM**”), which defines the relationship between risk and expected return for equity holders.

The CAPM stipulates that the rate of return required by shareholders is related to non-diversifiable (or systemic) risks and diversifiable (or non-systemic) risks.

Specifically, the CAPM stipulates that:

$$K_e = R_f + \text{Beta} \times (R_m - R_f)$$

Whereby:

<b><i>Ke</i></b>	=	Cost of equity
<b><i>Rf</i></b>	=	The risk free rate
<b><i>Beta</i></b>	=	is a measure of the sensitivity of a particular stock's returns as compared to the market as a whole. A stock with a beta of 1.0 exhibits the same level of risk as the market. The more risky an asset the higher its beta, the less risky an asset lower its beta.
<b><i>Rm – Rf</i></b>	=	Otherwise known as the market risk premium (“ <b>MRP</b> ”), refers to the return that the market as a whole generates over the risk free rate. In other words, this is equivalent to the additional rate of return that a stock with a beta of 1 exhibits over the risk free rate.

### Variables adopted

Summarised below are the variables we adopted:

- **Risk free rate:** we adopted the three year Commonwealth Government Bond Rate as at 30 September 2010 on the basis that the term of the options is three years.
- **Beta:** we reviewed the betas of companies comparable to Quay Magnesium as well as their respective gearing levels. Since gearing impacts the level of risk associated with a particular company, it also impacts a company's beta. A commonly adopted method in adjusting for the comparative gearing of stocks is to “ungear”, or remove the impact of gearing from the betas of individual stocks, and then “re-gear” the beta to the gearing level of the company being valued.

We adopted this approach as detailed below:

Quay Magnesium Beta Assessment			
Company	Geared Beta	Debt-to-Equity Ratio	Ungear Beta
Quay Magnesium Limited	1.0x	84%	0.6x
<hr/>			
Straits Resources Limited	2.1x	23%	1.8x
Advanced Magnesium Limited	1.8x	-	1.8x
China Direct Industries, Inc. (US listed)	2.0x	4%	1.9x
Globe Specialty Metals, Inc. (US listed)	1.9x	4%	1.8x
Average	1.8x		1.8x
Quay Magnesium's Debt-to-equity ratio			84%
<b>Geared beta for Quay Magnesium</b>			<b>2.9x</b>
<b>Assessed beta - low: less 10%</b>			<b>2.6x</b>
<b>Assessed beta - high: add 10%</b>			<b>3.2x</b>

Notes:

- Quay Magnesium was excluded from our calculation of average comparable betas.
  - We calculated Quay Magnesium's debt-to-equity ratio inclusive of the \$2 million in capital to be raised under the Proposed Transaction.
  - For consistency in measurement, we calculated all betas with reference to the S&P/ASX 200 Index.
- **Market risk premium:** we adopted a market risk premium of 6% which is consistent with the generally accepted and empirically supported market risk premium for Australia<sup>20</sup>.

Resultant cost of equity

Based on the above variables, we calculated Quay Magnesium's cost of equity to be in the range of 20.4% to 24.0% as detailed below:

Quay Magnesium Cost of Equity		
	Low	High
Risk free rate	4.8%	4.8%
Beta	2.6x	3.2x
Market risk premium	6.0%	6.0%
<b>Cost of equity</b>	<b>20.4%</b>	<b>24.0%</b>

<sup>20</sup> 'Discount rates for impairment tests', Simon Dalgarno FCA & Hamish Blair FCA, Charter Magazine, May 2010 states that the long-term equity market risk premium in Australia has historically ranged from approximately 5.5% to 6.5%. Additionally, 'Advanced Valuations', Kaplan Professional/FINSIA Masters of Applied Finance subject notes state that Australian studies indicate that the long-run average premium has been in the order of 6% to 8%.

Cross-check

As a cross-check to the cost of equity calculated above, we adopted the raw average beta of comparable stocks to calculate cost of equity and then added a small company risk premium as detailed below:

<b>Quay Magnesium Cross-check: Cost of Equity</b>		
	<b>Low</b>	<b>High</b>
Risk free rate	4.8%	4.8%
Beta	1.8x	1.8x
Market risk premium	6.0%	6.0%
Cost of equity	15.6%	15.6%
Add: Small company risk premium	5.0%	6.0%
<b>Cost of equity</b>	<b>20.6%</b>	<b>21.6%</b>

In support of this methodology, various studies have demonstrated a significant “size effect” in that smaller companies have higher equity risk premiums over and above that explained by their betas (in the context of CAPM). For example, Duff and Phelps<sup>21</sup> and the earlier Ibbotson Associates study<sup>22</sup>, both of which analysed the equity risk premium for companies listed on the New York Stock Exchange (“NYSE”), found that smaller companies listed on the NYSE generally had an equity risk premium of 5% to 6% over and above general risk premiums.

On the basis that our cross-check calculation of cost of equity falls within the range of our primary calculation of cost of equity, we are of the opinion that the cross-check supports our primary cost of equity calculation.

<sup>21</sup> Duff & Phelps, Risk Premium Report 2009

<sup>22</sup> Ibbotson Associates, Stocks, Bonds, Bills and Inflation 1997