



ASX Release  
31 July 2014

ABN  
44 009 157 439

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#### Directors

Mr Mark Gregory Kerr  
(Chairman)

Mr Mark Edward Elliott  
(Managing Director/CEO)

Dr David Tyrwhitt  
(Non Exec. Director)

Mr Li, Yijie  
(Non Exec. Director)

Mr Liao, Yongzhong  
(Non Exec. Director)

Mr Ye, Xiaohui  
(Non Exec. Director)

#### Senior Management

Mr Ian Moody  
(Exploration Manager)

Mr Mourice Garbutt  
(Company Secretary)

Mr Paul Chare  
(Project Manager)

ASX Symbol: HAW

# Hawthorn Resources Limited

## June 2014 Quarterly Report

### EXPLORATION AND DEVELOPMENT

#### **Kalgoorlie, Eastern Goldfields – Gold, Western Australia**

- Metallurgical testwork of Primary high grade gold ore zones at the **Anglo Saxon** deposit is complete – strong gravity gold recoveries and moderate reagent consumption indicates amenability to milling and hence potential expansion of mineralisation inventory with minor modification pit design.
- Interrogation of **Anglo Saxon** Mineralised Block Model commences, designed to assess potential expansion of pit into fresh rock zones is viable
- RAB and RC drilling program of recently defined geochemical and geophysical targets and in the **Coffey Bore** area commences at **Yundamindera Project**

#### **Central Yilgarn, Eastern Goldfields – Iron Ore, Western Australia**

- JV Manager – **Legacy Iron Ore** announces that drilling at **Mt Mason North Haematite** – targeting northern extension of known **Mt Mason Haematite** resource of Jupiter Mines Limited and newly identified potential DSO haematite horizons is to commence during August.

## INTRODUCTION

Hawthorn Resources Limited (“Hawthorn”) is an Australian diversified minerals exploration company with tenement holdings and joint ventures primarily focussed in the Kalgoorlie District of the Eastern Goldfields of Western Australia.

### GOLD

Hawthorn’s exploration effort remains focussed on the progression of its highly prospective portfolio of gold tenements towards production, with exploration concentrated on its 5 key project areas.

- ***Trouser Legs – Anglo Saxon, Deep South, Yundamindera – Coffey Bore, Edjudina – Triumph, and Whiteheads.***

Metallurgical testwork continued on the ***Anglo Saxon Gold Deposit*** primarily focussed on relatively near surface, Primary fresh rock high gold grade intercepts that had been excluded from potential mining designs to date. The testwork indicates that the zones identified respond well in potential milling situations with good gold recoveries from conventional processing that incorporates a gravity circuit. These results have encouraged Hawthorn to re-interrogate the existing resource estimate and block model with a view to identifying ore blocks that can be accessed with limited modification to existing initial pit designs, and potentially identify further zones that could be accessed from an expanded pit.

Initial mine, pit and infrastructure layouts have been designed in conjunction with the formal Mining Proposal and Mine Closure Plan required by the Western Australia Department of Mines and Petroleum. Further modifications of these plans will reflect further discussions with the Department and other regulatory authorities.

Following drilling programs completed at the ***Deep South Project area*** in the previous quarter an initial block model is being constructed that may be utilised to generate a resource estimate in the upcoming quarter.

Drilling programs had commenced in the ***Yundamindera Project*** at the quarter end designed to initially test geophysical and / or geochemical targets and further drill test the extensions of the known Coffey Bore gold mineralisation.

### IRON ORE

At the ***Mt Bevan Iron Ore Project***, the Joint Venture Manager, Legacy Iron Ore (“Legacy”), has announced that the keenly awaited drilling at ***Mt Mason North Haematite***, targeting northern extension of known ***Mt Mason Haematite*** resource of Jupiter Mines Limited and newly identified potential DSO haematite is due to commence in August 2014. Hawthorn has developed, for the Manager, a series of drillhole locations that should enable further correlation with drilling carried out in the Jupiter resource area. Several other holes on targets in the Mezzo BIF area are also expected to be drilled.

Legacy has further announced a Renounceable Rights Issue offer to its shareholders that is planned to provide a proportion of funds raised for exploration and development activities in the Mt Bevan Joint Venture area. Hawthorn sees this initiative as a sign of Legacy’s confidence in the near term development potential of the DSO haematite assets and the longer term magnetite potential of the Joint Venture area.

## Gold Exploration – Western Australia incorporating:

### **Deep South Project**

*Hawthorn Resources 80%, MetalsX 20%;*

### **Trouser Legs Project**

*Hawthorn Resources 70%, Gel Resources 30%;*

### **Edjudina - Triumph Project**

*Hawthorn Resources 100% and Edjudina-Pinjin JV Tenements (Hawthorn Resources 80%, MetalsX 20%);*

### **Yundamindera Project**

*Hawthorn Resources 100% and Edjudina-Pinjin JV Tenements (Hawthorn Resources 80%, MetalsX 20%); and*

### **Whiteheads Project**

*Hawthorn Resources 100%*

Hawthorn Resources' Western Australian gold exploration programs are primarily focussed in five major project areas where Hawthorn Resources holds in its own right, has earned or is earning equity from joint venture partners in over 60 granted exploration, mining, prospecting licences and applications. The Company believes that each of the major project areas, in close proximity to milling and transport infrastructure, hold both exploration upside and near term potential for development.

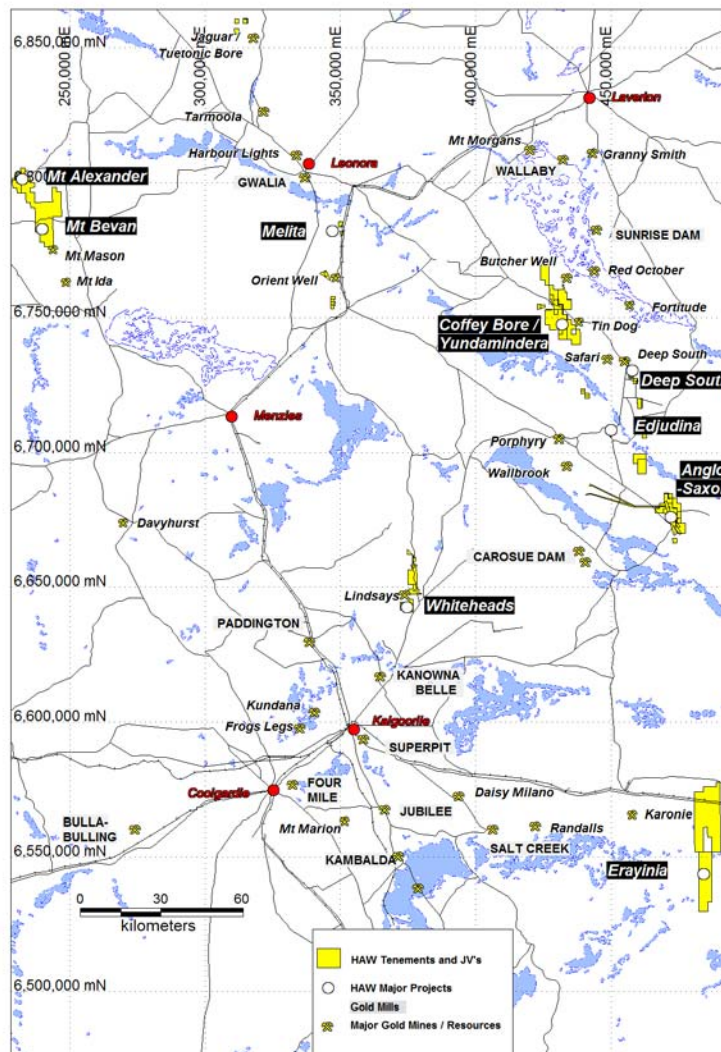


Figure 1. Eastern Goldfields, Western Australia – Project Locations

The major projects cover two geological and mineralogical domains.

- A substantial part of the Eastern Goldfields extending from the Lake Carey to the historic Pinjin Mining Centre – a strike length of approximately 125 kilometres. Hawthorn's tenement package is surrounded by major gold mines, deposits and advanced resources including **Sunrise Dam, Wallaby, Red October, Carosue Dam, Safari Bore, Deep South, Porphyry** and **Butchers Well Mines**. The gold endowment of these mines and resources currently exceeds 22 Million ounces.
- A contiguous group of 15 tenements ("Whiteheads") covering the historic Gindalbie Mining Centre that surrounds the **Lindsays** gold resource of KalNorth Gold Mines Limited ("KalNorth"), and only 50 kilometres from the mining infrastructure hub of Kalgoorlie.

### **Trouser Legs – Anglo Saxon Project**

*(Hawthorn Resources 70%, Gel Resources 30%).*

The **Trouser Legs Project** area is located 140 km north east of Kalgoorlie and is centred on the historic **Anglo Saxon Mine**. The **Trouser Legs - Anglo Saxon** project area is situated 35 kilometres to the east of the Carosue Dam Mill of Saracen Mineral Holdings.

Hawthorn has announced a Mineral Resource Estimate at the Anglo Saxon Deposit of

- **Indicated Mineral Resource – 599,000t at 3.3 g/t gold for 63,700 oz of gold (Oxide and Transition Zones Only), and**
- **Inferred Mineral Resource – 1,687,000t at 4.1 g/t gold for 221,800 oz of gold (Oxide, Transition and Primary)**

During the quarter mineralogical testwork was completed by **ALS Metallurgy** on two high gold grade intercepts in Primary ore zones within the **Anglo Saxon** deposit. The two intercepts tested are significant as they each belong to ore zones immediately beneath the base of the current initial pit design.

The two samples treated returned initial assay grades of

- **PIND008 73.60-76.69 3.09 m @ 4.40 g/t Au**
- **PIND011 87.40-89.33 1.93 m @ 35.7 g/t Au**

The entire drill core for each sample was submitted for Gold Extraction Testwork at a nominal target grind size P80 of 200µm in hypersaline process water. The results are summarised in the Table below.

Sample ID	Test No.	Gold Head Grade (g/t)		% Gold Extraction			Consumption		Bond Ball Mill Work Index (kWh/t)
		Assay	Calc	Gravity	In Hours		(kg/t)		
					8	48	NaCN	Lime	
Comp #11 PIND008	BK2899	7.51/4.97	5.31	86.7	97.3	98.0	0.40	9.12	17.5
Comp #10 PIND011	BK2900	40.4/43.7	43.53	88.4	97.6	98.6	0.48	6.99	17.2

These results are considered extremely encouraging by Hawthorn as they indicate that

- Despite the presence of minor sulphides, a high percentage of the gold recovered occurs in a simple gravity circuit.
- The overall gold extraction recovery after 8 hours is excellent at >97%.
- Reagent consumption is modest and in line with results obtained in earlier sampling from oxide and transition zones.
- Work Index rates (i.e the amount energy required to crush the sample) is in line with comparable deposits.

The implications of this data may be very significant for future mining development at Anglo Saxon.

- It indicates that fresh rock ore zones can be treated in a conventional plant without penalty for recovery.
- As both intercepts of the ore zones tested plot only 6 and 10 metres beneath the current pit design base, it is believed that both zones could be mined with only minor modification to the existing pit design



Figure 2. Initial Pit Design and location of Diamond Drill Holes – Anglo Saxon Deposit

Assessment has commenced of the initial 20-30 metres beneath the current base of pit design to identify similar, further, high grade ore zones that may be exploited in the current or a modified pit design and hence increase the size of the deposits mining inventory.



This assessment is to be expanded to confirm potential strike and depth continuity of high gold grade lode systems within the substantial **Primary Inferred Resource (1,665,000 tonnes @ 4.1 g/t Au for 219,500 ounces of gold)** that could be converted to an Indicated Resource category with minor extra drilling; an increasingly important factor as the mineralised zones appear amenable to treatment in a conventional mill. This deeper drilling will be carried out prior to, and during, the initial mining phase of the deposit.

Hawthorn Resources confirms that all material assumptions and technical parameters underpinning the Mineral Resource Estimate in the announcement, **Anglo Saxon – Indicated Mineral Resource Upgrade; ASX Announcement: 30/10/2013**, continue to apply and have not materially changed, and that the form and context in which the Competent Persons findings are presented have not been materially altered.

**Deep South Project**

(Hawthorn Resources 80%, Metals X 20%).

The project area lies directly along strike to the south of **Deep South Mine**, approximately 170 km to the north east of Kalgoorlie in Western Australia. Hawthorn holds tenements in this area in Joint Venture, with Metals X Limited.

Hawthorn has identified a gold mineralised horizon analogous to the adjacent **Deep South** gold orebodies (Indicated and Inferred Resource - 279,000 oz Au) of Saracen Mineral Holdings Limited.

RC drilling programs completed during previous quarter included an intercept in **DSC123** of **14m @ 3.50 g/t Au** (incorporating **3 metre intervals of 6.47 g/t Au** and **7.74 g/t Au**) that correlates well with similar mineralisation at surface in the Central Mineralised Zone as below.

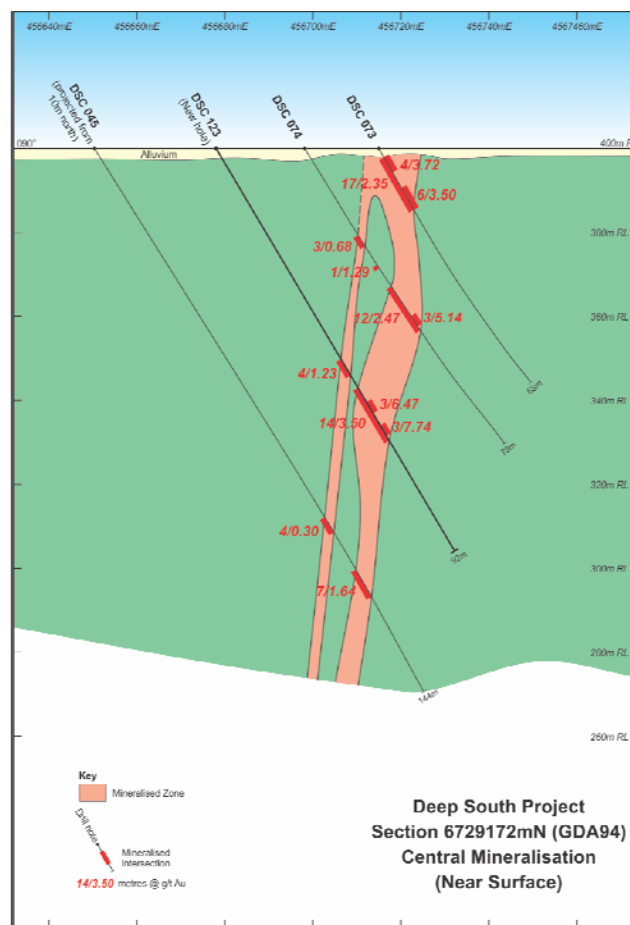


Figure 3. Deep South – Section 6729172 N

These results have encouraged Hawthorn to develop a block model that can be used to report a resource estimate in the upcoming quarter.

Hawthorn field crews have identified several targets within their tenements to the south of known mineralisation with drilling to assess these targets to occur in the upcoming quarter.

### **Yundamindera Project**

*(Hawthorn 100% and Hawthorn Resources 80%, Metals X 20%).*

In the **Yundamindera Project** area, located approximately 175 kilometres to the north east of Kalgoorlie, Western Australia exploration has focused on the discovery of gold associated with mineralised syenitic porphyry dykes, BIF's and shears. Three new exploration licences have been applied for by Hawthorn during the quarter and are pending grant.

A significant mineralised body has been identified at **Coffey Bore** where a broad zone of gold mineralisation associated with stockwork quartz veining at the base of a shallow, 45° east dipping, porphyry intrusion has been drill tested over 450 metres of strike.

RAB and follow-up RC drilling has commenced in the **Yundamindera Project** designed to initially test 11 recently defined geophysical and / or geochemical targets and drill test strike extensions of the known **Coffey Bore** gold mineralisation.

Results from this program are expected to be reported during September and October 2014.

### **Edjudina – Triumph Project**

*(Hawthorn 100%)*

Gold mineralisation in the project area, 145 kilometres North-east of Kalgoorlie is hosted by a series of strike parallel quartz veins. Three major, distinct and separate quartz vein sets ("Reef 1, 2 & 3") host most of the known gold mineralisation in the project area.

Drilling in this project, primarily in the **Senate Mine** area, will commence during August 2014.

### **Whiteheads Project**

*(Hawthorn 100%)*

The **Whiteheads Project** area is situated within the historic Gindalbie Mining area, 50 kilometres north-east of Kalgoorlie, Western Australia. The project area is also only 30 kilometres from gold plants at Kanowna Belle and Paddington Mines.

Detailed exploration will recommence in the project area during the upcoming quarter.

## **Iron Ore Exploration – Western Australia**

### ***Mount Bevan Iron Ore Project***

*(Hawthorn 40%, Legacy 60%)*

The **Mount Bevan Project** comprising Exploration Licences 29/510 and 29/713 is located approximately 100 km west of Leonora in the central Yilgarn region of Western Australia.

The Project area is held in Joint Venture with Legacy Iron Ore “Legacy” (Hawthorn 40%, Legacy 60%), with technical programs approved by a Technical Committee comprising representatives of each company.

Three substantial BIF horizons have been identified within the tenement to date that extend in a north-northwest orientation throughout the entire length of the tenement; a strike distance of more than 25 kilometres. The westernmost of these horizons hosts the substantial ***Mt Bevan Indicated Magnetite Resource of 322Mt @ 34.7% Fe*** within a larger ***Indicated and Inferred Magnetite Resource of 1,117 Mt @ 34.9% Fe***.

In addition the northern extension of the Jupiter Mines Limited ***Mt Mason Resource DSO Haematite Resource (9.4Mt @ 57.6% Fe)*** extends into the Joint Venture tenement.

In the previous quarter the Joint Venture agreed to carry out a campaign of infill drilling of the northern extension of the Jupiter Mines Limited ***Mt Mason Resource*** at ***Mt Mason North***. This drilling is designed to enable correlation with the substantial drilling carried out in the Jupiter resource area. In addition following promising grab and channel samples, drill testing of potential DSO haematite horizons of the “Mezzo BIF” in the central portions of the project area was approved. This drilling is now reported by the Manager to commence during August 2014.

Subsequent to the end of the quarter Legacy announced a Renounceable Rights Issue offer to its shareholders with a proportion of funds raised to be dedicated to exploration and development activities in the Mt Bevan Joint Venture area.

Hawthorn sees this initiative as a sign of Legacy’s confidence in the near term development potential of the DSO haematite assets and possible longer term magnetite potential of the Joint Venture area.

## **Joint Ventures**

### ***Erayinia Joint Venture – Western Australia***

*(Black Raven Mining 70%, Hawthorn Resources 30%).*

The Joint Venture manager, Black Raven Mining Pty Ltd, reports that a drilling program to test targets identified in the VTEM survey flown in 2013 with limited or no test drilling to date and representing compelling exploration targets in shallow but pervasive cover sequence is now complete.

Results from this program are pending.

### ***East Kimberley Joint Venture – Western Australia***

*(Matsa Resources 80%, Hawthorn Resources 20%)*

No exploration was reported from this project for the quarter.



## **CORPORATE**

### ***Board of Directors***

No change.

### ***Management – Managing Director/CEO***

The Board of Directors is pleased to advise that the Service Agreement between the Company and Mr M E Elliott has been extended to 31 December 2015 to cover the ongoing development of the Company's mining interests, in particular:

- (i) Gold – Anglo Saxon Project mining proposals; and
- (ii) Iron Ore - continuation of negotiations with Legacy Iron Ore Limited for the development of both the haematite and magnetite deposits as have been identified by the Mount Bevan Iron Ore Project.

### ***Funding/Cash Balance***

As at 30 June 2014 the Company held 'clear' funds-on-hand of A\$9.56 million and, currently, has A\$9.2 million on-hand representing a cash backing of \$0.054 a share.

Of these funds A\$9.0 million is invested in Term Deposits at an average annual rate of interest of 3.6 per cent.

### ***Issued Securities***

During the quarter ended 30 June 2014 there were no changes in the number of the Company's securities on issue. Such securities being the 171,263,644 ordinary fully paid shares quoted on the official lists of the Australian Stock Exchange (ASX Limited) under the securities code of: "HAW".

### ***Office Accommodation***

The Company has agreed to an extension of its sub-leasing agreement for the fully serviced office accommodation facilities at Level 2, 90 William Street, Melbourne for a further two year period to 31 December 2016.



**Mourice R Garbutt**  
**Company Secretary**

*The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Mr Ian Moody, who is a member of the Australasian Institute of Mining and Metallurgy and a full time consultant geologist with First Principle Mineral Exploration Company Pty Ltd. Mr Moody has sufficient experience as a geologist which is relevant to the style of mineralization and the type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Moody consents to the inclusion in this report of the matters based on his information in the form and context in which it appears*

# Appendix 5B

## Mining exploration entity quarterly report

Introduced 1/7/96. Origin: Appendix 8. Amended 1/7/97, 1/7/98, 30/9/2001, 01/06/10, 17/12/10

Name of entity

<b>HAWTHORN RESOURCES LIMITED</b>
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ABN

44 009 157 439
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Quarter ended ("current quarter")

30 June 2014
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### Consolidated statement of cash flows

	Current quarter \$A'000	Year to date (12 months) \$A'000
<b>Cash flows related to operating activities</b>		
1.1 Receipts from product sales and related debtors	-	-
1.2 Payments for (a) exploration and evaluation	(841)	(3,794)
(b) development	-	-
(c) production	-	-
(d) administration	(360)	(1,609)
1.3 Dividends received	-	-
1.4 Interest and other items of a similar nature received	116	499
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Other (provide details if material)		
- GST (Refundable)	-	336
<b>Net Operating Cash Flows</b>	<b>(1,085)</b>	<b>(4,568)</b>
<b>Cash flows related to investing activities</b>		
1.8 Payment for purchases of: (a) prospects	-	-
(b) equity investments	-	-
(c) other fixed assets	-	-
1.9 Proceeds from sale of: (a) prospects	-	-
(b) equity investments	-	-
(c) other fixed assets	-	-
1.10 Loans to other entities	-	-
1.11 Loans repaid by other entities	-	-
1.12 Other (provide details if material)	-	-
<b>Net investing cash flows</b>	<b>-</b>	<b>-</b>
1.13 Total operating and investing cash flows (carried forward)	<b>(1,085)</b>	<b>(4,568)</b>

+ See chapter 19 for defined terms.

**Appendix 5B**  
**Mining exploration entity quarterly report**

1.13	Total operating and investing cash flows (brought forward)	(1,085)	(4,568)
	<b>Cash flows related to financing activities</b>		
1.14	Proceeds from issues of shares, options, etc.	-	-
1.15	Proceeds from sale of forfeited shares	-	-
1.16	Proceeds from borrowings	-	-
1.17	Repayment of borrowings	-	-
1.18	Dividends paid	-	-
1.19	Other – payments in relation to June 2013 Quarter Share Placement	-	(238)
	<b>Net financing cash flows</b>	-	(238)
	<b>Net increase (decrease) in cash held</b>	(1,085)	(4,806)
1.20	Cash at beginning of quarter/year to date	10,646	14,367
1.21	Exchange rate adjustments to item 1.20	-	-
1.22	<b>Cash at end of quarter</b>	9,561	9,561

**Payments to directors of the entity and associates of the directors**

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

		Current quarter \$A'000
1.23	Aggregate amount of payments to the parties included in item 1.2	218
1.24	Aggregate amount of loans to the parties included in item 1.10	-

1.25 Explanation necessary for an understanding of the transactions in item 1.23

Directors fees & salary \$108,345 (Previous Quarter \$100,670)
Fully Serviced Office facility rental \$86,625 (Previous Quarter \$86,625)
Company requested Consulting Fees \$23,100 (Previous Quarter \$18,150)

**Non-cash financing and investing activities**

- 2.1 Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows

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- 2.2 Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest

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+ See chapter 19 for defined terms.

### Financing facilities available

Add notes as necessary for an understanding of the position.

	Amount available \$A'000	Amount used \$A'000
3.1 Loan facilities		
3.2 Credit standby arrangements		

### Estimated cash outflows for next quarter

	\$A'000
4.1 Exploration and evaluation	820
4.2 Development	-
4.3 Production	-
4.4 Administration	380
<b>Total</b>	<b>1,200</b>

### Reconciliation of cash

Reconciliation of cash at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts is as follows.

	Current quarter \$A'000	Previous quarter \$A'000
5.1 Cash on hand and at bank	482	586
5.2 Deposits at call	9,079	10,060
5.3 Bank overdraft	-	-
5.4 Other (provide details)	-	-
<b>Total: cash at end of quarter</b> (item 1.22)	<b>9,561</b>	<b>10,646</b>

### Changes in interests in mining tenements

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

+ See chapter 19 for defined terms.

**Appendix 5B**  
**Mining exploration entity quarterly report**

**Issued and quoted securities at end of current quarter**

*Description includes rate of interest and any redemption or conversion rights together with prices and dates.*

	Total number	Number quoted	Issue price per security (see note 3) (cents)	Amount paid up per security (see note 3) (cents)
7.1 <b>Preference +securities</b> <i>(description)</i>	-	-	-	-
7.2 Changes during quarter				
(a) Increases through issues	-	-	-	-
(b) Decreases through returns of capital, buy-backs, redemptions	-	-	-	-
7.3 <b>+Ordinary securities</b>	171,263,644	171,263,644	-	-
7.4 Changes during quarter				
(a) Increases through issues	-	-	-	-
(b) Decreases through returns of capital, buy-backs	-	-	-	-
7.5 <b>+Convertible debt securities</b> <i>(description)</i>	-	-	-	-
7.6 Changes during quarter				
(a) Increases through issues	-	-	-	-
(b) Decreases through securities matured, converted	-	-	-	-
7.7 <b>Options</b> <i>(description and conversion factor)</i>			<i>Exercise price</i>	<i>Expiry date</i>
	-	-	-	-
7.8 Issued during quarter	-	-	-	-
7.9 Exercised during quarter	-	-	-	-
7.10 Lapsed during quarter	-	-	-	-
7.11 <b>Debentures</b> <i>(totals only)</i>	-	-		
7.12 <b>Unsecured notes</b> <i>(totals only)</i>	-	-		

**Compliance statement**

+ See chapter 19 for defined terms.

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



Sign here:..... Date: 31/07/2014  
(Company secretary)

Print name: MOURICE GARBUTT

## Notes

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

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HAWTHORN RESOURCES LIMITED  
ACN 009 157 439  
CHANGES IN INTERESTS IN MINING TENEMENTS

**6.1 Interests in Mining Tenements relinquished, reduced or lapsed**

Tenement Reference	Nature of Interest [note (4)]	Interest at beginning of quarter	Interest at end of quarter
E39/1350	Surrendered	100%	0%
M40/316	Surrendered	100%	0%
P31/1903	Expired	100%	0%

**6.2 Interests in Mining Tenements acquired Or increased**

Tenement Reference	Nature of Interest [note (4)]	Interest at beginning of quarter	Interest at end of quarter
E39/1791	Granted	0%	100%
E39/1792	Granted	0%	100%
E39/1804	Granted	0%	100%
E39/1810	Granted	0%	100%

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+ See chapter 19 for defined terms.

## Interests in Mining Tenements

*Disclosure in accordance with ASX Listing Rule 5.3.3.*

<b>Project / Tenement</b>	<b>Location</b>	<b>Interest at beginning of quarter</b>	<b>Interest at end of quarter</b>	<b>Joint Venture Partner / Farm-In Partner / Farm Out Partner</b>
<b>Melita</b>	<b>West Australia</b>			
E 40/287		100%	100%	
P 40/1218		100%	100%	
P 40/1219		100%	100%	
P 40/1220		100%	100%	
P 40/1221		100%	100%	
P 40/1222		100%	100%	
P 40/1223		100%	100%	
P 40/1224		100%	100%	
<b>Pinjin East</b>	<b>West Australia</b>			
E 31/760		100%	100%	
E 31/781		100%	100%	
E 31/782		100%	100%	
E 31/783		100%	100%	
E 31/882		100%	100%	
E 31/888		100%	100%	
E 31/1049		100%	100%	
E 31/1050		100%	100%	
<b>Savannah</b>	<b>West Australia</b>			
E 31/454		100%	100%	
<b>Triumph</b>	<b>West Australia</b>			
E 31/778		100%	100%	
E 31/790		100%	100%	
M 31/481		100%	100%	
<b>Whiteheads</b>	<b>West Australia</b>			
E 27/175		100%	100%	
E 27/347		100%	100%	
P 27/1769		100%	100%	
P 27/1770		100%	100%	
P 27/1771		100%	100%	
P 27/1772		100%	100%	
P 27/1773		100%	100%	
P 27/1784		100%	100%	
P 27/1785		100%	100%	
P 27/1786		100%	100%	

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+ See chapter 19 for defined terms.

**Appendix 5B**  
**Mining exploration entity quarterly report**

<b>Yundamindera</b>	<b>West Australia</b>			
E 39/1292		100%	100%	
E 39/1297		100%	100%	
E 39/1351		100%	100%	
E 39/1673		100%	100%	
E 39/1674		100%	100%	
E 39/1791		0%	100%	
E 39/1792		0%	100%	
E 39/1804		0%	100%	
E 39/1810		0%	100%	
P 39/4697		100%	100%	
P 39/4700		100%	100%	
P 39/4701		100%	100%	
P 39/4713		100%	100%	
P 39/4714		100%	100%	
P 39/4875		100%	100%	
P 39/4876		100%	100%	
<b>Mt Bevan Iron Ore Joint Venture</b>	<b>West Australia</b>			
E 29/510 -I		40%	40%	Legacy Iron Ore Limited
E 29/713		40%	40%	Legacy Iron Ore Limited
<b>Deep South Edjudina - Pinjin Joint Venture</b>	<b>West Australia</b>			
E 39/1298		80%	80%	Avoca Resources Ltd / Metals X Ltd
E 39/1299		80%	80%	Avoca Resources Ltd / Metals X Ltd
E 39/1300		80%	80%	Avoca Resources Ltd / Metals X Ltd
E 39/1301		80%	80%	Avoca Resources Ltd / Metals X Ltd
E 39/1302		80%	80%	Avoca Resources Ltd / Metals X Ltd
P 39/4703		80%	80%	Avoca Resources Ltd / Metals X Ltd
P 39/4704		80%	80%	Avoca Resources Ltd / Metals X Ltd
P 39/4705		80%	80%	Avoca Resources Ltd / Metals X Ltd
P 39/4706		80%	80%	Avoca Resources Ltd / Metals X Ltd
P 39/4707		80%	80%	Avoca Resources Ltd / Metals X Ltd
P 39/4709		80%	80%	Avoca Resources Ltd / Metals X Ltd
<b>Pinjin – Trouser Legs Joint Venture</b>	<b>West Australia</b>			
G 31/4		70%	70%	GEL Resources
L 31/32		70%	70%	GEL Resources
L 31/66		70%	70%	GEL Resources
M 31/78		70%	70%	GEL Resources
M 31/79		70%	70%	GEL Resources
M 31/88		70%	70%	GEL Resources
M 31/113		70%	70%	GEL Resources
M 31/284		70%	70%	GEL Resources
<b>Edjudina - Pinjin Joint Venture</b>	<b>West Australia</b>			
E 31/766		80%	80%	Avoca Resources Ltd / Metals X Ltd
E 31/788		80%	80%	Avoca Resources Ltd / Metals X Ltd
E 31/789		80%	80%	Avoca Resources Ltd / Metals X Ltd
P 31/1871		80%	80%	Avoca Resources Ltd / Metals X Ltd
P 31/1872		80%	80%	Avoca Resources Ltd / Metals X Ltd
P 31/1873		80%	80%	Avoca Resources Ltd / Metals X Ltd
P 31/1874		80%	80%	Avoca Resources Ltd / Metals X Ltd

+ See chapter 19 for defined terms.

**Appendix 5B**  
**Mining exploration entity quarterly report**

<b>Yundamindera Edjudina - Pinjin Joint Venture</b>	<b>West Australia</b>			
E 39/1294		80%	80%	Avoca Resources Ltd / Metals X Ltd
E 39/1295		80%	80%	Avoca Resources Ltd / Metals X Ltd
P 39/4596		80%	80%	Avoca Resources Ltd / Metals X Ltd
P 39/4695		80%	80%	Avoca Resources Ltd / Metals X Ltd
P 39/4696		80%	80%	Avoca Resources Ltd / Metals X Ltd
P 39/4698		80%	80%	Avoca Resources Ltd / Metals X Ltd
P 39/4699		80%	80%	Avoca Resources Ltd / Metals X Ltd
<b>Yindana - Erayinia Joint Venture</b>	<b>West Australia</b>			
E 28/1228		30%	30%	Black Raven Mining
E 28/1612		30%	30%	Black Raven Mining
<b>Teutonic Bore Royalty *</b>	<b>West Australia</b>			
E 37/902		0%	0%	Jabiru Metals
P 37/7351		0%	0%	Jabiru Metals
	* Royalty up to a maximum of \$1m subject to conditions			
<b>Kimberley Joint Venture</b>	<b>West Australia</b>			
E 80/2559		20%	20%	Kimberley Metals / Thunderlarra

+ See chapter 19 for defined terms.