

## Hawthorn Resources Limited March 2019 Quarterly Report

#### **MINE DEVELOPMENT & PRODUCTION – TROUSER LEGS MINE**

- Ore Parcel 10 17,032 tonnes processed 1,306 gold ounces recovered.
- Ore Parcel 11 29,090 tonnes processed 1,657 gold ounces recovered.
- Ore Parcel 12 28,180 tonnes processed Final recovered gold ounces pending
- Ore Parcel 13 21,693 Wet tonnes processed Final recovered gold ounces pending

#### NEAR MINE EXPLORATION

- Drill program to test deeper high grade zones beneath current planned pit base completed returns new results including:
  - 3 metres @ 17.48 g/t Au
  - 2 metres @ 11.48 g/t Au
    - 1 metres @ 49.30 g/t Au
    - 2 metres @ 18.02 g/t Au
- Four Diamond core holes completed for geotechnical and metallurgical testwork.

#### **EXPLORATION**

- RC Drilling at Coffey Bore initial results include:
  - 7 metres @ 3.35 g/t Au
  - 9 metres @ 2.15 g/t Au
  - 35 metres @ 1.10 g/t Au

#### SALE OF MINING LEASES AND EXPLORATION TENEMENTS

- Following the end of the March 2019 Quarter, Hawthorn Resources Limited Announced:
  - the sale of its interests in 18 tenements in the Box Well and Deep South project areas (subject to Due Diligence)
  - sale price \$ 13.5 Million Australian Dollars

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ABN 44 009 157 439

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#### Directors

Mr. Mark Gregory Kerr (Chairman / Managing Director)

Dr David Tyrwhitt (Non Exec. Director)

Mr. Christopher Corrigan (Non Exec. Director)

Mr. Li, Yijie (Non Exec. Director)

Mr. Liao, Yongzhong (Non Exec. Director)

Mr. Liu, Zhensheng (Non Exec. Director)

Senior Management

Mr. William Lloyd (Operations Manager)

Mr. Ian Moody (Exploration Manager)

Mr. Mourice Garbutt (Company Secretary)

Mr Tony Amato (CFO)

ASX Symbol: HAW

Hawthorn Resources' gold mining, development and exploration programs is primarily focussed in four major project areas where Hawthorn Resources holds in its own right or has earned equity from joint venture partners in 43 granted exploration, mining, prospecting licences and applications.



Figure 1. Eastern Goldfields, Western Australia – Project Locations

During the March 2019 quarter, Hawthorn Resources Limited have continued mining of the *Trouser Legs Gold Mine,* with the western wall cutback nearing completion at the quarter end. The initial drilling program designed to extend the mine life through an expanded open pit or underground development is complete. Encouraging results have continued to be returned and a Pre-Feasibility Study will commence in the upcoming quarter.

Exploration and development activities to advance and expand the resource base in the **Box Well Gold Resource (130,000 ounces Au) / Yundamindera Project Area** continued. After the end of the quarter Hawthorn advised shareholders that it had entered into a binding Asset Sale and Purchase Agreement with Saracen Mineral Holdings Limited (ASX: SAR) and its subsidiary Saracen Gold Mines Pty Ltd that covers Hawthorns tenements in the Yundamindera (Box Well) and Deep South Project Areas.

#### **Mining and Production**

#### Trouser Legs Gold Mine

(Trouser Legs Mining JV) - Hawthorn Resources 70%, Gel Resources 30%

Mining and gold production continued during the March 2019 Quarter at the Trouser Legs Gold Mine.



Figure 2. Trouser Legs Gold Mine – Looking North – April 2019

The Project area, 140 km north east of Kalgoorlie and 35 kilometres to the east of the Carosue Dam Mill of Saracen Mineral Holdings Limited, is a contributory Joint Venture with *Gel Resources Limited*.

Gold ore mined at the *Trouser Legs Mine* continues to be hauled to the Carosue Dam Mill (operated by Saracen Gold Mines Pty Ltd).

Mining during the March Quarter was primarily in the Stage 3 portion of the planned pit design with planned western wall cutback mining and final ramp construction limiting the volume of ore available. The western wall cutback is now complete and ore from the higher grade portions of the Stage 2 and 3 Pits is progressively being available for mining. See Figure 2 and 3



Figure 3. Trouser Legs Gold Mine – Looking West – 322.5 m Level – Stage 3 cutback.

During the March 2019 quarter mining operations have continued with higher grade ore mining inhibited by slower than expected removal of the Stage 3 cutback.

- o 413,139 BCM of waste and ore was mined from the deposit,
- o 66,732 tonnes of ore was delivered to the minesite ROM pad,
- o 17,120 tonnes of ore was delivered to the minesite Low Grade stockpile.

Gold grades and recoveries continue to remain at schedule.

- Ore Parcel #10 (17,032 tonnes) returned 1,306 ounces of gold at 2.46 g/t Au with 96.97% gold recovery. Parcel gold price \$ 1,733 AUD / ounce
- Ore Parcel #11 (29,090 tonnes) returned 1,657 ounces of gold at 1.83 g/t Au with 96.60% gold recovery. Parcel gold price \$ 1,808 AUD / ounce
- Ore Parcel #12 (28,180 tonnes) gold grade and recovery pending. Parcel gold price \$ 1,847 AUD / ounce

\*Note gold grades and recoveries reported above are actuals and follow grade top-cutting and recovery deductions as per the Ore Purchase Agreement with Saracen Gold Mines Pty Ltd.

The planned cutback of waste and ore to the west of the Stage 1 and 2 pit is now complete and will, provide access to oreblocks at and below the 320 m RL (+/- 55 metres below natural surface)

Mining continues to refine the structural and geological framework that controls mineralisation within the Trouser Legs Gold Mine.

#### **Near Mine Exploration**

#### Trouser Legs Gold Mine

(Trouser Legs Mining JV) - Hawthorn Resources 70%, Gel Resources 30%

A close spaced drilling program has been undertaken at moderate depths on sections beyond and beneath the south end of the current final *Trouser Legs Mine* design. This drilling has been carried out to assess further mining potential of known high gold grade lodes in either an expanded open cut pit or a potential underground mine development.

The Trouser Legs Joint Venture, commenced drill testing of these deeper gold lodes at the **Trouser** Legs Gold Mine during October 2018 with the program expanded in December 2018 and completed during March 2019.

The follow up program (4 HQ drillholes - 662 metres / 39 RC holes and Precollars - 8175 metres), has continued to intersect a series of stacked, high gold grade, quartz dominant lodes.

Additional to the numerous high gold grade intercepts reported in the **Hawthorn Resources Limited** – **December 2018 Activities Report (ASX 31/01/2019)** – new results returned during the quarter are reported in Table 1 below.



Figure 4. Trouser Legs South and Depth Extension Drilling - October 2018 - March 2019

Hole No.	Prospect	Type	From	<u>To</u>	<u>Width</u>	<u>Au</u>
			<u>(m)</u>	<u>(m)</u>	<u>(m)</u>	<u>g/t</u>
TL18009	Trouser Legs Extension	RC				NSA
TL18010	Trouser Legs Extension				Not	Drilled
TL18011	Trouser Legs Extension	RC	98	99	1	10.10
			129	130	1	19.90
			147	148	1	13.80
			154	156	2	9.90
			177	178	1	7.00
TL18012	Trouser Legs Extension	RC	116	117	1	8.80
			130	131	1	14.60
			144	146	2	2.65
			162	168	6	1.96
incl			162	164	2	3.93
			177	187	10	2.40
incl			177	178	1	6.81
incl			186	187	1	6 41
mor			194	195	1	9.28
			201	202	1	16.25
TI 18012	Trouser Leas Extension	RC	201	202	,	NSA
TI 18014	Trouser Logs Extension	RC				
TI 18015	Trouser Legs Extension	PC	7/	77	2	1 70
1210013	Trouser Leys Exterision		00	// 02	3 2	1.70
	+		00	03	ა ა	5.21 6 40
Incl			90	101	3	0.46
IIICI.			100	101	5	14.00
Incl			125	130	5	2.30
INCI.			125	120	1	6.14
			140	144	4	5.69
Incl.			140	141	1	18.23
TL18016	Trouser Legs Extension	RC	41	46	5	2.42
			102	105	3	2.72
			132	133	1	12.65
			153	157	4	3.09
Incl.			154	155	1	8.47
			167	170	3	2.69
TL18017	Trouser Legs Extension	RC			Pre	Collar
TL18017A	Trouser Legs Extension	RC	84	86	2	18.02
Incl.			84	85	1	34.05
			90	92	2	3.95
			97	100	3	2.39
			114	116	2	2.64
			122	123	1	9.79
TL18019	Trouser Legs Extension	RC	137	139	2	9.01
Incl.			137	138	1	16.60
-			147	149	2	8.62
Incl.			147	148	1	15.77
			150	151	1	26.95
			164	166	2	3.01
			179	180	1	9.06
			189	1.90	1	9,87
TI 18020	Trouser Leas Extension	RC	80	02	3	2 57
TI 180204	Trouser Legs Extension	RC	80	81	1	14 25
7 - 70020A			140	142	2	25.08
Incl	1		1/1	1/2	1	<u>20.30</u> <u>10 20</u>
			116	142	1	-+5.30 26 15
	+		140	14/	1	20.10
TI 19024	Trouser Logs Extension	PC	101	102	2	23.10
1 L 10024	TTOUSET LEYS EXTENSION		101	103		5.10
			121	122	1	0.40
			134	133	1	11.00 E 65
			1/5	1//	<u> </u>	5.05
			18/	188	1	14.15
TI 40005			191	192	1	5.10
1L18025	i rouser Legs Extension	RC				INSA
1L18026	I rouser Leas Extension	1		1	Not	Drilled

## Table 1. Trouser Legs South and Depth Extension RC Drill Assays (> 5.0 gram \* metres)January – March 2019

#### Hawthorn Resources Limited – March 2019 Activities Report

TL18027	Trouser Legs Extension	RC	71	72	1	7.32
			88	89	1	4.22
TL18028	Trouser Legs Extension	RC			Pre	Collar
TL18028A	Trouser Leas Extension	RC				NSA
TL18029			86	88	2	5.15
	incl		86	87	1	9.75
			224	225	1	8.57
TI 18030	Trouser Leas Extension	RC.			Pre	Collar
TL 180304	Trouser Legs Extension	RC			110	NSA
TL 18030A	Trouser Logs Extension	PC	45	52	7	1 40
1210031	House Legs Extension	NO	40	07	7	1.49
			04	0/	3	3.40
			110	119	1	13.62
			127	130	3	11.95
Inci.			128	129	1	26.50
			153	156	3	2.23
			171	172	1	7.60
			189	191	2	7.55
			207	210	3	3.15
TL18032	Trouser Legs Extension	RC	131	133	2	5.99
Incl.			132	133	1	9.00
			138	139	1	5.39
			158	159	1	5.00
			189	192	3	9.03
			191	192	1	17.55
			236	237	1	6.93
TI 18033	Trouser Leas Extension		86	207	1	3.38
1210033	Houser Legs Extension		00 05	101	6	8.60
Incl			35	101	1	24.70
			90	99	1	34.70
les el			110	112	2	19.47
Inci.			111	112	1	36.40
			126	128	2	2.51
			132	133	1	4.58
			135	136	1	10.14
			144	145	1	15.70
			162	164	2	11.48
Incl.			163	164	1	19.35
			169	171	2	4.58
			174	175	1	13.35
TL18034	Trouser Legs Extension	RC				NSA
TL18036	Trouser Legs Extension	RC	48	49	1	35.90
	Č Č		60	62	2	5.78
			77	80	3	6.52
Incl			79	80	1	12 20
mon			92	03	1	23 10
			102	104	2	23.10
Incl	1		102	104		16.02
<i></i>			1102	103	I E	7.04
Incl			110	124	0	7.01
INCI.			118	119	1	23.90
			136	137	1	10.70
			156	157	1	10.50
			160	167	7	10.11
incl			160	161	1	62.70
TL18039	Trouser Legs Extension	RC				NSA
TL18041	Trouser Legs Extension	RC	40	42	2	4.76
TL18042	Trouser Legs Extension	RC	101	103	2	20.50
			141	144	3	2.05
			167	168	1	4.47
			217	219	2	5.68
TL18043	Trouser Leas Extension	RC				NSA
TL18044	Trouser Leas Extension	RC				NSA
TI 18045	Trouser Leas Extension	RC	aa	101	2	4 57
			132	124	2	21.05
			177	170	2	11 11
			202	205	2	0 40
			202	205	3	2.43

All RC samples collected as 1 metre splits through rotating splitter. No grade topcut. All RC and Precollar assays Bureau Veritas, Kalgoorlie. 0.30 g/t Au lower cut - < consecutive 2.0m of internal waste for each intercept. NSA = No significant Assays > 5 gram \* metres

Several holes in this program exhibited significant deviation and have missed the target horizons, however the main gold lodes exhibit relatively good continuity along strike and at depth. An initial long section of the mineralisation intercepted to date (with the current proposed final pit shell) is presented in Figure 5.



Figure 5. Trouser Legs South Extension (1) Ore Zones – Potential Development on Proposed Final Pit Design (+/- 100 metres vertical depth) – West View

It is important to note that the area targeted to date is the shallowest of several deeper areas of the Indicated and Inferred resource at *Trouser Legs* – in an area potentially accessible via an expansion of the existing open cut pit or limited underground development. Exploration targeting subsequent resource panels at depth will continue throughout 2019.

A scoping study is underway assessing both the expanded open cut pit and underground development options. This work is expected to be complete in the upcoming quarter and if positive will flow promptly into a Pre-Feasibility Study.

#### **Coles Prospect**

(Trouser Legs Mining JV) - Hawthorn Resources 70%, Gel Resources 30%

During the quarter a Mining Proposal was submitted to the West Australian Department of Mines, Industry Regulation and Safety to develop a small openpit on the gold mineralised **Coles Prospect**, situated approximately 5.5 km north of the **Trouser Legs Mine** operation and immediately adjacent to the existing haul road.

A final round of drilling has recently been completed on this prospect with results due during May 2019.

#### **Exploration**

Yundamindera Gold Project

Deep South Gold Project Mt Bevan Iron & Base Metal Project Hawthorn Resources 100% and Edjudina-Pinjin JV Tenements (Hawthorn Resources 80%, Westgold Resources 20%); Hawthorn Resources 80%, Westgold Resources 20%; Hawthorn Resources 40%, Legacy Iron Ore 60%;

#### Yundamindera Project

(Hawthorn 100% and Hawthorn Resources 80%, Westgold Resources 20%).

In the **Yundamindera Project** area, located approximately 175 kilometres to the north east of Kalgoorlie, Western Australia, Hawthorn is exploring a contiguous tenement package covering over 145 km<sup>2</sup>.

Exploration in the **Yundamindera Project** area has been focused towards the discovery of shear, BIF and porphyry associated gold mineralisation – the host of major gold resources in the North East Goldfields of Western Australia at the **Sunrise Dam (>10 Moz Au), Wallaby (>7 Moz Au)**, **Jupiter –** *Mt Morgan (2.8 Moz Au)* and *Butcher Well (0.3 Moz)* mining centres.

Significant gold mineralisation has been discovered within the project area both in outcrop and more importantly, beneath extensive and pervasive, transported cover sequences at shallow depths.



Figure 6. Box Well and Coffey Bore Prospects – Geology of North East Goldfields of Western Australia

At the **Box Well Gold Resource** (*Hawthorn Resources 100%*) a strongly gold mineralised, silicified shear zone has been discovered within a broader, gold mineralised, altered stockwork quartz veined package of felsic volcanics and volcaniclastic sediments. An Indicated and Inferred Mineral Resource Estimate for **Box Well** of **130,000 ounces of gold** has been announced. Similar lithologies and alteration are also observed at the gold mineralised **Coffey Bore Prospect** – 7.0 kilometres along strike to the south-east of **Box Well**.

During the quarter broad spaced Aircore Drilling was carried out in areas of thick sheetwash and alluvium between **Box Well** and **Coffey Bore** and a RC drill program was carried out at **Coffey Bore**.



Figure 7. Box Well to Coffey Bore Prospective Zone on SAM Geophysical data

The aircore drilling program continued to identify strongly weathered sediments, felsic lavas and tuffs, volcaniclastic sediments and rarer felsic intrusives beneath transported cover sequences. Broad zones of low grade gold mineralization were identified along distinctive geophysical contacts representing the contact between resistive silicified volcanics and conductive sheared sediments. A number of these broad zones of anomalous gold results require follow-up drill testing.

At the *Coffey Bore Prospect* infill RC Drilling (18 holes / 1146 metres) was completed. The drilling was designed to allow a mineral resource to be estimated when incorporated with broad spaced RC drilling completed in 2010 and 2014. Drilling is now complete on 30-35 metre spaced shallow sections. Results from this drilling are still pending however several initial results demonstrate to hand indicate broad zones of mineralized lavas and intrusives exist.

Collar details from this drilling are attached in Appendix 2.

Hole No.	Prospect	Туре	From	То	Width	Au
			(m)	(m)	(m)	g/t
YMC178	Coffey Bore	RC	40	75	35	1.10
Incl.			41	44	3	2.00
Incl.			69	70	5	2.86
YMC179	Coffey Bore	RC				Pending
YMC180	Coffey Bore	RC				Pending
YMC181	Coffey Bore	RC	31	38	7	1.15
and			50	56	6	1.19
YMC182	Coffey Bore	RC				Pending
YMC183	Coffey Bore	RC	54	66	12	1.01
YMC184	Coffey Bore	RC				Pending
YMC185	Coffey Bore	RC				Pending
YMC186	Coffey Bore	RC				Pending
YMC187	Coffey Bore	RC				Pending
YMC188	Coffey Bore	RC	16	29	13	0.82
YMC189	Coffey Bore	RC	14	36	22	0.65
YMC190	Coffey Bore	RC	46	57	11	1.15
and			64	66	2	1.46
YMC191	Coffey Bore	RC				Pending
YMC192	Coffey Bore	RC	21	29	8	1.79
YMC193	Coffey Bore	RC				Pending
YMC194	Coffey Bore	RC				Pending
YMC195	Coffey Bore	RC	19	26	7	3.35

Table 2. Coffe	ey Bore RC Drill Assay	s – March 2019
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All RC samples collected as 1 metre splits through rotating splitter.

No grade topcut. All assays Bureau Veritas, Kalgoorlie. 0.30 g/t Au lower cut - < consecutive 2.0m of internal waste for each intercept.

Following the announcement to the ASX on 18 April 2019 that this project area is subject to a binding Asset Sale and Purchase Agreement with Saracen Mineral Holdings Limited (ASX: SAR) and its subsidiary Saracen Gold Mines Pty Ltd (Agreement), future work on this project area will be of a care and maintenance nature.

#### **Deep South Project**

(Hawthorn Resources 80%, Westgold Resources 20%).

The **Deep South Project** is approximately 180 kilometres north east of Kalgoorlie with the project area situated along strike of known economic gold mineralisation hosted in the **Deep South-Mexico** gold orebodies owned by Saracen Mineral Holdings Limited ("Saracen"). Saracen has announced an intention to resume commercial production from the underground mine later in 2019.

Hawthorn has identified a gold mineralised horizon analogous to the adjacent **Deep South** gold orebodies within its tenement package.

Following the announcement to the ASX on 18 April 2019 that this project area is subject to a binding Asset Sale and Purchase Agreement with Saracen Mineral Holdings Limited (ASX: SAR) and its subsidiary Saracen Gold Mines Pty Ltd (Agreement), future work on this project area will be of a care and maintenance nature.

#### **Joint Ventures**

#### Mount Bevan Iron Ore / Base Metals Project

(Hawthorn 40%, Legacy 60% and managing)

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

#### Iron Ore

Several substantial BIF horizons have been identified within the tenement, the westernmost of these horizons hosts the *Mt Bevan Indicated Magnetite Resource* of 322*Mt* @ 34.7% *Fe* within a larger *Inferred Magnetite Resource* of 1,117 *Mt* @ 34.9% *Fe*. In addition the northern extension of the Jupiter Mines Limited ("Jupiter") *Mt Mason Resource DSO Haematite Resource* (9.4*Mt* @ 57.6% *Fe*) extends into the Joint Venture tenement.

#### **Base Metals**

During previous quarters results of RC drilling program carried out over EM ("Electro-Magnetic") anomalies on the Joint Venture tenement were announced. The EM anomalies targeted appear similar to those identified by **St George Mining Limited** (**ASX: SGQ**) in the "Mt Alexander, Stricklands - Cathedrals Belts" that adjoins the Joint Venture tenement.

A 2<sup>nd</sup> pass of drilling is likely to commence during the June 2019 Quarter.

#### CORPORATE

#### **Board of Directors**

Membership -the composition of the Board of Directors is unchanged

#### Issued Securities – ASX Limited securities code: "HAW"

The number of ordinary fully paid shares on issue and quoted on the official lists of the ASX as at 31 March 2019 was unchanged at 326,615,613 fully paid ordinary shares.

As at 31 March 2019 the Top 20 Shareholdings, as set out below, held 252,292,102 shares being 77.24 per cent of the number of shares on issue:

1	FENG HUA MINING INVESTMENT HOLDING (HK) LIMITE	120,788,101	36.98	
2	BELFORT INVESTMENT ADVISORS LIMITED		56,095,028	17.17
3	HSBC CUSTODY NOMINEES (AUSTRALIA) LIMITED		12,777,486	3.91
4	LEGACY IRON ORE LIMITED		12,575,000	3.85
5	MR MARK GREGORY KERR	& ASSOCIATES	11,100,456	3.40
6	MR BRIAN THORNTON		6,111,879	1.87
7	YELRIF INVESTMENTS PTY LIMITED	<pension a="" c="" fund=""></pension>	5,500,000	1.68
8	MR VICTOR LORUSSO		4,127,529	1.26
9	DR MARK THEO BLOCH		3,825,000	1.17
10	MR WILLIAM DONALD LLOYD		2,376,166	0.73
11	MR SHIJUN CHEN		2,003,795	0.61
12	YELRIF INVESTMENTS PTY LIMITED		2,000,002	0.61
13	MR MICHAEL ROBERT WELLARD		2,000,000	0.61
14	AUSTIC ENTERPRISES PTY LTD		2,000,000	0.61
15	MR MARK ANDREW MITCHELL & MRS LINDA JOAN MITCHELL	<m &="" a="" c="" f="" l="" mitchell="" s=""></m>	1,800,000	0.55
16	MR NICHOLAS ANDREOU		1,676,256	0.51
17	MR LUKE MARGOCSY		1,634,719	0.50
18	MR TONY DOMENIC AMATO		1,346,254	0.41
19	MS JANET ELIZABETH WELLARD		1,328,319	0.41
20	BINARY SOLUTIONS AUSTRALIA PTY LTD	<krishnaji a="" c="" f="" pitale="" s=""></krishnaji>	1,226,112	0.38

#### Funding/Cash Balance/Working Capital

As at 31 March 2019 the Company held "clear" funds-on-hand of A\$9.560 million (December 2018: A\$8.416 million) and Working Capital of A\$2.44 million (December 2018: A\$4.641 million).

#### **Mining Tenements**

(a) March 2019 quarterly movements:

For full details of the movements in Mining Tenement interests during the period and held as at 31 March 2018 refer to the schedules attached to the Appendix 5B Report accompanying this Quarterly Activities Report.

(b) Sale of Mining Leases and Exploration Tenements:

On 18 April 2019 the Company announced to the ASX that it had entered into a binding Asset Sale and Purchase Agreement with Saracen Mineral Holdings Limited (ASX: SAR) and its subsidiary Saracen Gold Mines Pty Ltd (Agreement).

The Agreement provides for the sale of Hawthorn's interests in Box Well and Deep South mining leases along with exploration tenements totalling 18 tenements and leases (Assets) for a consideration of A\$13.5 million payable in cash.

The sale is subject to the usual conditions precedent for such a transaction including due diligence by SAR and is expected to be completed before 30 June 2019.

1hr

Mourice R Garbutt Company Secretary

The information in this report that relates to the Mineral Reserve estimation is based on information compiled by Mr William Lloyd, a Competent Person who is a Member of Australasian Institute of Mining and Metallurgy. Mr Lloyd is employed by BM Geological Services. Mr Lloyd has been engaged as an external independent consultant by Hawthorn Resource Limited. Mr Lloyd has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Lloyd consents to the inclusion in the report of the matters based on her information in the form and context in which it appears.

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 1 – Drill Hole Collars Trouser Legs South and Depth Extension

HoleId	MGA94_N	MGA94_E	AHD	EOH	Dip	Azimuth	
TL18_009	6672406.99	474378.84	375.52	279	-43.6	250.1	
TL18_011	6672377.56	474358.60	375.35	206	-45.9	249.3	
TL18_012	6672377.96	474359.53	375.50	219	-54.0	247.2	
TL18_013	6672378.25	474359.95	375.46	243	-59.6	248.0	
TL18_014	6672356.37	474359.86	375.06	237	-63.3	249.5	
TL18_015	6672335.62	474359.89	374.84	160	-49.3	249.0	
TL18_016	6672335.77	474360.43	374.77	231	-56.5	246.9	
TL18_017	6672324.03	474368.23	374.41	117	-55.9	250.0	
TL18_017A	6672326.87	474367.35	374.58	210	-51.9	251.8	
TL18_018	6672328.93	474388.59	374.38	229	-55.3	252.1	*
TL18_019	6672296.56	474377.05	374.26	200	-58.3	251.8	
TL18_020	6672285.31	474375.67	373.98	101	-50.0	247.7	
TL18_020A	6672285.22	474375.44	373.94	197	-53.0	246.8	
TL18_021	6672255.36	474375.70	373.42	177	-53.0	251.0	*
TL18_022	6672266.70	474398.67	373.64	231	-58.0	248.5	*
TL18_023	6672271.28	474415.15	373.52	279	-59.8	247.1	*
TL18_024	6672248.56	474410.14	373.35	201	-57.8	246.6	
TL18_025	6672258.27	474429.65	373.44	221	-57.9	245.8	
TL18_027	6672217.07	474390.58	373.11	225	-55.5	246.3	
TL18_028	6672239.65	474431.86	373.06	101	-51.9	249.9	
TL18_028A	6672239.84	474432.29	373.04	268	-57.8	251.4	
TL18_029	6672208.53	474404.99	373.07	246	-68.7	245.1	
TL18_030	6672216.06	474425.40	372.92	104	-70.2	246.9	
TL18_030A	6672216.03	474425.16	372.89	224	-65.6	247.0	
TL18_031	6672185.16	474401.52	372.69	219	-60.8	247.4	
TL18_032	6672201.90	474442.80	372.63	249	-57.2	249.8	
TL18_033	6672168.35	474410.01	372.59	207	-61.4	246.3	*
TL18_034	6672186.89	474454.95	372.58	230	-61.9	251.3	
TL18_035	6672132.00	474391.34	372.10	177	-65.9	248.4	*
TL18_036	6672138.56	474407.35	372.11	207	-66.7	248.8	
TL18_037	6672145.91	474425.66	372.25	235	-63.8	248.3	*
TL18_038	6672152.07	474440.88	372.33	255	-66.6	249.2	*
TL18_039	6672111.11	474390.90	371.90	199	-67.6	250.0	
TL18_040	6672127.53	474433.06	371.97	230	-68.7	247.3	*
TL18_041	6672100.48	474419.07	371.60	213	-65.0	249.0	
TL18_042	6672107.34	474435.97	371.64	237	-65.0	249.0	
TL18_043	6672116.02	474455.24	371.59	237	-62.4	250.6	
TL18_044	6672078.43	474415.50	371.47	161	-63.1	252.2	
TL18_045	6672089.37	474444.97	371.19	213	-65.7	249.0	*
TLDD_001	6672336.00	474362.26	374.77	236	-59.5	250.0	
TLDD_002	6672258.70	474384.58	373.54	201.4	-56.6	250.5	
TLDD_003	6672231.20	474410.65	373.16	246.8	-61.1	250.3	
TLDD_004	6672195.58	474421.00	372.74	228.4	-60.7	250.5	

\* Assay results reported in December 2018 Activities Report

HoleId	Hole Type	Project	Date	MGA94_N	MGA94_E	AHD	EOH	Dip	Azimuth
YMC178	RC	Coffey Bore	Mar-19	6746425	432730	380	86	-60	271
YMC179	RC	Coffey Bore	Mar-19	6746391	432702	378	56	-60	270
YMC180	RC	Coffey Bore	Mar-19	6746390	432733	379	74	-60	270
YMC181	RC	Coffey Bore	Mar-19	6746446	432701	378	68	-60	270
YMC182	RC	Coffey Bore	Mar-19	6746446	432748	380	104	-60	270
YMC183	RC	Coffey Bore	Mar-19	6746489	432699	381	74	-60	269
YMC184	RC	Coffey Bore	Mar-19	6746555	432660	382	50	-60	268.5
YMC185	RC	Coffey Bore	Mar-19	6746554	432701	382	92	-60	270
YMC186	RC	Coffey Bore	Mar-19	6746615	432637	380	50	-60	268.5
YMC187	RC	Coffey Bore	Mar-19	6746616	432667	381	74	-60	268.5
YMC188	RC	Coffey Bore	Mar-19	6746645	432627	380	44	-60	267.5
YMC189	RC	Coffey Bore	Mar-19	6746668	432623	380	44	-60	268
YMC190	RC	Coffey Bore	Mar-19	6746671	432657	381	74	-60	269
YMC191	RC	Coffey Bore	Mar-19	6746424	432690	378	44	-60	270
YMC192	RC	Coffey Bore	Mar-19	6746468	432666	380	32	-60	270
YMC193	RC	Coffey Bore	Mar-19	6746468	432703	380	68	-60	270
YMC194	RC	Coffey Bore	Mar-19	6746517	432715	379	80	-60	269
YMC195	RC	Coffey Bore	Mar-19	6746448	432666	377	32	-60	270

## Appendix 2 – Drill Hole Collars Coffey Bore

## Appendix 3

## JORC Code, 2012 Edition - Trouser Legs Mine - South Depth Extension RC and Core Drilling

### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>There has been a Senior Geologist managing the drilling for the Manager for the duration of the program.</li> <li>As per this report <ul> <li>Reverse circulation (RC) = 32 drill holes and 3</li> <li>Precollars / 6813 metres</li> <li>Diamond Core (HQ) = 4 Holes / 662 metres</li> </ul> </li> <li>All RC holes were sampled in 1m intervals from a rotating splitter.</li> <li>Diamond Core is as yet unsampled</li> <li>Sampling technique discussed over page in sub sampling technique section.</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul><li>RC is 5.5 inch hammer drilling</li><li>Diamond Core is HQ</li></ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>Assessment of RC recovery is by visual means. Recovery is good there is no known relationship between recovery and mineralisation grade in holes.</li> <li>Diamond Core is logged with any core loss noted in logsheets</li> <li>No effect between recovery and grade has been detected</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate</li> </ul>	<ul> <li>Chip samples have been geologically logged for all relevant geological and some structural data. Logging for this program</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul> <li>Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>has been digitally captured, and are capable of being included in a Mineral Resource Estimation. Chips are retained in chip trays</li> <li>Every metre is individually logged</li> <li>Holes have been digitally logged on site and uploaded into the main database on a weekly basis.</li> <li>Diamond Core logging for lithology, geotechnical and structural elements is ongoing at site</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Holes were split using a rotary splitter.</li> <li>All samples were dry. At rod changes the cyclone and splitter are cleaned using compressed air.</li> <li>If water is encountered between rod changes splitter and cyclone are again cleaned using compressed air.</li> <li>Individual metres spoil piles are dumped in lines of 30.</li> <li>Each Individual metre samples weigh approximately 25 kg with individual 1 metre splits from splitter of 2.5-3.5 kg obtained and sent for assay.</li> <li>Shallow portions of RC drillholes and Precollars are composited into 4 metre samples for submission. If anomalous results are returned individual 1 metre samples are submitted</li> <li>CRM standards and blanks duplicates submitted with assays</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>Samples are assayed by Fire Assay, 30 g charge at ALS , Kalgoorlie (TL18001-TL18008). Samples from dillholes TL18009 onwards are assayed by Bureau Veritas, Kalgoorlie via a 50g charge Fire Assay</li> <li>3 different gold grade CRM standards, duplicates and blanks have been submitted at a rate of aprroximately 6 (3 CRMs, 2 duplicates, 1 Blank) / 100 samples.</li> <li>Analysis on individual standards is ongoing with each standard inserted performing reasonably well with no major variance observed.</li> <li>No distinct or systemic bias has been detected</li> </ul>

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Significant intersections have been assessed by Mine Geology staff at the Trouser Legs Gold Mine</li> <li>Onsite geologist data verified by Exploration Manager</li> <li>Laboratory data is supplied electronically to site and head office</li> <li>Project data is currently stored at the head office of the company and in onsite laptops and on the Trouser Legs Mine server. Each system is backed up on a regular schedule.</li> <li>Geological logging is entered by technical staff and reviewed for correctness.</li> <li>Samples for assay are collected from drillsite and upon collection are transported in Bulka bags to the laboratory for assay</li> <li>Initial assays of &gt;0.40 g/t Au are requested for duplicate assay</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>The grid is GDA 94 Zone 51.</li> <li>All collars have been surveyed by registered surveyors using a DGPS as part of mine site surveying</li> <li>Surface land form is generally flat and surveyed drillholes have been incorporated into a topographic surface.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Drill holes were drilled on fences 20-30 metres apart, with between 2 and 4 holes in each section. Holes are designed to intersect ore lodes at regular vertical depths sufficient to be used in and Ore Resource Estimation</li> <li>Several Drill holes were arranged as a "fan" at increasingly steep angles to intersect target lodes at regular downhole depths where pit constraints dictate</li> <li>Drilling is designed to update Mineral Resource in this area</li> <li>No compositing applied</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>The drilling is at varying dips between -45 and - 65 ° drilled towards 240-250°. Orientations are at or within 10 degrees to the interpreted right angle of the strike of mineralisation. Dip of mineralisation is believed to be at greater than 60-70° to the E or ENE.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>It is understood that there is no bias introduced by the drilling direction.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>All RC samples submitted to the laboratory are collected directly from the splitter with the sample bag tied. During sample collection for all holes a staff member is always present. Samples are delivered to the laboratory in batches via a dedicated transport company.</li> </ul>
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	<ul> <li>There have been no external audits or reviews of sampling techniques and data.</li> </ul>

## **Section 2 Reporting of Exploration Results**

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>The drilling was carried out on granted M31/79 with a PoW and Mining Approval in place. The tenement is in a 70:30 contributory JV with Gel Resources</li> <li>There are no known issues and the tenements are in good standing at this time</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Significant exploration has been undertaken by other parties. The data has been reviewed for both location and grade distribution. To date the post 2011 and the pre 2011 data grade distribution is almost identical. A selection of pre 2011 drillholes have been surveyed in the current coordinate system and are located correctly.</li> <li>Aurifex/Newmont/Amoco/Picon/Little River drilled 14,150 m RC, 438 m DD, 4,572 m percussion and 398.3 m of channel samples pre-1999</li> <li>Gutnick Resources NL drilled 23,566 m RC and 912.7 m DD between 1999 and 2008</li> </ul>

Criteria	JORC Code explanation	Commentary
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>Mineralization occurs in a broad shear bound alteration zone within a felsic schist unit that dips west from 55 to 70 degrees and ranges from 20 to 100 m in width. Individual gold lodes are interpreted to dip from 38 to 80 degrees towards the east and occurs in a number of fairly discrete packages, stacked above each other, broadly similar to a ladder vein system. Gold mineralization appears to be related to thin quartz veins which vary in thickness from 2 mm to 80 cm but occur in sub parallel groups. A small pit mined during the mid to late 1980's provides good exposure for mapping mineralized veins. Many veins can be followed 30 to 50 m along strike with more prominent veins being followed for up to 120m.</li> <li>Mining of the deposit has commenced and vein orientation maps are being produced</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul> <li>All drillholes drilled in the period have been reported in Appendix 1. All significant assays (&gt; 5.0 gram x metres) have been reported in the body of the report.</li> <li>Holes with no significant assay results are reported as such.</li> </ul>
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values</li> </ul>	<ul> <li>As per Table 1 in the attached release</li> <li>There has been no top-cutting applied</li> </ul>

Criteria	JORC Code explanation	Commentary
	should be clearly stated.	
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>Down hole lengths reported – true widths are estimated at approximately 60-80% of downhole reported width</li> </ul>
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul> <li>Refer to Figures 2 – 5 of the report.</li> </ul>
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul> <li>Not applicable as all results of &gt; 5 gram metres are reported</li> </ul>
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul> <li>Drillholes have all gyroscopically surveyed at 5 m intervals by contract firm ABIMS.</li> <li>Approximately 25 holes were surveyed by a downhole OTV camera system. These images are being used to assess the structutal orientation of lodes.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Follow up RC drilling and Core drilling will be undertaken if warranted</li> </ul>

## Appendix 4

## JORC Code, 2012 Edition - Coffey Bore RC and Yundamindera Project Aircore Drilling

### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Coffey Bore RC</li> <li>There has been a Senior Geologist managing the drilling for the duration of the program.</li> <li>As per this report <ul> <li>Reverse circulation (RC) = 18 drill holes for 1146 metres</li> </ul> </li> <li>All RC holes were sampled in 1m intervals from a rotating splitter.</li> <li>Sampling technique discussed over page in sub sampling technique section. <ul> <li>Yundamindera Project Aircore</li> </ul> </li> <li>There has been a Senior Geologist managing the drilling for the duration of the program</li> <li>Holes drilled to refusal or overlapping cover in a fence</li> <li>All holes were sampled via a scoop as 4 metre composite samples</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul> <li>RC is 5.5 inch hammer drilling</li> <li>Aircore is 4 inch bit</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>Assessment of RC recovery is by visual means. Recovery is good there is no known relationship between recovery and mineralisation grade in holes.</li> <li>No effect between recovery and grade has been detected</li> <li>Aircore recovery dependent weathering status of the rock and volume of water encountered</li> </ul>

Criteria	JORC Code explanation	Commentary
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Coffey Bore RC</li> <li>Chip samples have been geologically logged for all relevant geological and some structural data. Logging for this program has been digitally captured, and are capable of being included in a Mineral Resource Estimation. Chips are retained in chip trays</li> <li>Every metre is individually logged</li> <li>Holes have been digitally logged on site and uploaded into the main database on a weekly basis.</li> </ul>
		<ul> <li>Holes are logged on a composite basis – several holes have been chip trayed</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Coffey Bore RC</li> <li>Holes were split using a rotary splitter.</li> <li>99% of samples were dry. At rod changes the cyclone and splitter are cleaned using compressed air.</li> <li>If water is encountered between rod changes splitter and cyclone are again cleaned using compressed air.</li> <li>Individual metres spoil piles are dumped in lines of 30.</li> <li>Each Individual metre samples weigh approximately 25 kg with individual 1 metre splits from splitter of 2.5-3.5 kg obtained and sent for assay.</li> <li>RC drillholes are composited into 4 metre samples for submission. If anomalous results are returned individual 1 metre samples are submitted</li> <li>CRM standards and blanks duplicates submitted with assays at a rate of 4 /100 samples</li> <li>Aircore Drilling</li> <li>Samples were collected in buckets directly from the cyclone and dumped on the ground</li> <li>A single scoop (representative) of each sample pile was take +/-</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>No resampling has been undertaken</li> <li>2 CRM standards / 100 samples inserted</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>Coffey Bore</li> <li>Samples are assayed by Fire Assay, by Bureau Veritas, Kalgoorlie via a 40g charge Fire Assay</li> <li>3 different gold grade CRM standards, duplicates and blanks have been submitted at a rate of aprroximately 4 / 100 samples.</li> <li>Analysis on individual standards is ongoing with each standard inserted performing reasonably well with no major variance observed.</li> <li>No distinct or systemic bias has been detected</li> </ul>
		<ul> <li>Aircore Drilling</li> <li>Samples are assayed via Low-level gold 1 ppb DL at Ultratrace Perth</li> <li>Samples have been analysed by Firing a 40 gm (approx) portion of the sample. Elements determined by Inductively Coupled Plasma (ICP) Optical Emission Spectrometry</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Coffey Bore and Aircore Drilling</li> <li>Onsite geologist data verified by Exploration Manager</li> <li>Laboratory data is supplied electronically to site and head office</li> <li>Project data is currently stored at the head office of the company and in onsite laptops of field personnel. Each system is backed up on a regular schedule.</li> <li>Geological logging is entered by technical staff and reviewed for correctness.</li> <li>Samples for assay are collected from drillsite and upon collection are transported in Bulka bags to the laboratory for assay</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> </ul>	<ul><li>The grid is GDA 94 Zone 51.</li><li>All collars have been surveyed by a cycling GPS. Survey</li></ul>

Criteria	JORC Code explanation	Commentary
	<ul><li>Specification of the grid system used.</li><li>Quality and adequacy of topographic control.</li></ul>	<ul> <li>pickups are pending</li> <li>Surface land form is generally flat and surveyed drillholes have been incorporated into a topographic surface.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Coffey Bore</li> <li>Drill holes were drilled on fences 40-50 metres apart to obtain effective drill coverage of 25 – 30 metres along strike ,</li> <li>Between 2 and 4 holes in each section. Holes are designed to intersect ore lodes at regular vertical depths sufficient to be used in and Mineral Resource Estimation</li> <li>Drilling is designed to obtain Mineral Resource in this area</li> <li>No compositing applied Aircore Drilling</li> </ul>
		<ul> <li>Drill fences at 300 – 800 metre line spacing</li> <li>Holes at a nominal 40 metre spacing along drill fence</li> <li>Data not appropriate for a Mineral Resource Estimate</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>Coffey Bore</li> <li>The drilling is at -60 ° drilled towards 270°. Orientations are at or within 10 -20 degrees to the interpreted right angle of the strike of mineralisation. Dip of mineralisation is believed to be at approximately 45-55° to the ENE.</li> <li>It is understood that there is no bias introduced by the drilling direction.</li> <li>Aircore Drilling</li> </ul>
		• All holes are drilled at -60 ° drilled towards 270°. Orientations are at or within 10 -20 degrees to the interpreted right angle of the strike of mineralisation. Dip of mineralisation is believed to be at greater than 55 - 65° to the ENE
Sample security	The measures taken to ensure sample security.	<ul> <li>All RC samples submitted to the laboratory are collected directly from the splitter with the sample bag tied. During sample collection for all holes a staff member is always present. Samples are delivered to the laboratory in batches via a</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>dedicated transport company.</li> <li>Aircore samples are collected from sample piles and taken to a camp storage prior to despatch</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>There have been no external audits or reviews of sampling techniques and data.</li> </ul>

## **Section 2 Reporting of Exploration Results**

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>Coffey Bore</li> <li>The drilling was carried out on granted E39/1295 with a PoW and Mining Approval in place. The tenement is in a 80:20 JV with Westgold Resources</li> <li>There are no known issues and the tenements are in good standing at this time Aircore Drilling </li> <li>The drilling was carried out on granted E39/1295 with a PoW and Mining Approval in place. The tenement is in a 80:20 JV with Westgold Resources </li> <li>Further drilling was carried out on E39/1673, E39/1292, M39/1112, - all 100% held by Hawthorn under a approved PoW</li> <li>There are no known issues and the tenements are in good standing at this time</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>The tenements were soil sampled by Anglogold Australia, WMC, Delta Gold and Gutnick Resources between 1986 – 2006. No further work was carried out on the tenements until Hawthorn obtained the tenement.</li> </ul>
		<ul> <li>Targets at Box Well were RAB drilled by Hawthorn in late 2014. Follow-up RC programs were drilled in April, July and November 2015. RC and Diamond Drilling in 2016 established a reported Indicated and Inferred Resource of 130,000 oz of Au</li> <li>Initial RC drilling at Coffey Bore by Hawthorn in 2010 and 2014</li> </ul>

Criteria	JORC Code explanation	Commentary
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>Locally the geology consists of intermediate schists and igneous intrusives adjacent to sediments. Basaltic andesite, felsic volcanics and volcaniclastics trend in a north west- south east direction. The northern tenements are dominated by interbedded undifferentiated sediments and andesite. Differentiated doleritic sills intrude into conglomeritic and polymictic sands stones towards the east of the tenements. Interbedded ultramafic, peridote-bearing intrusives and dolerite form a distinctive northwest trend in along the west of the tenements. These lithologies can be overlain by Cenozoic ferruginous clay, colluvium and silts. Several significant drainage systems in the licence are associated with alluvium, clay, silt and sand</li> <li>A key feature of several deposits in the area is the close association of gold mineralisation on the margins of – if not outright hosted by – syenitic porphyries, which has been</li> </ul>
		demonstrated in the Coffey Bore area of Hawthorn's adjoining tenement E39/1295. At Box Well West thin syenite porphyries are known, however the mineralisation appears to within a N-S striking shear zone that has brecciated felsic volcanic lithologies, with latter silicification prominent.
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul> <li>All Coffey Bore drillholes drilled in the period have been reported in Appendix 2. Assays are pending for a number of holes however all significant assays at hand to date have been reported in the body of the report in Table2.</li> <li>Holes with no significant assay results are reported as such.</li> <li>Aircore holes were essentially carried out for deep geochemical sampling – significant assays are reported in Figure 7</li> </ul>

Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>As per Table 2 in the attached release</li> <li>There has been no top-cutting applied</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>Down hole lengths reported – true widths are estimated at approximately 60-80% of downhole reported width</li> </ul>
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul> <li>Refer to Figures 6-7 of the report.</li> </ul>
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul> <li>Not applicable as all results of &gt; 3.0 gram metres are reported if</li> </ul>
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul> <li>RC Drillholes were surveyed with a multishot camera at a nominal 30m downhole intervals by the drilling company.</li> <li>Aircore hole not surveyed.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	Follow up RC drilling AirCore drilling is recommended

+Rule 5.5

## Appendix 5B

## Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13, 01/09/16

#### Name of entity

HAWTHORN RESOURCES LIMITED

ABN

4 4 000 4 5 7 400

Quarter ended ("current quarter")

44 009 157 439

31 March 2019

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	9,570	38,185
1.2	Payments for		
	(a) exploration & evaluation	(384)	(633)
	(b) development	-	-
	(c) production	(7,634)	(27,854)
	(d) staff costs	(55)	(210)
	(e) administration and corporate costs	(121)	(548)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	24	41
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Research and development refunds	-	-
1.8	Other - GST	(256)	(509)
	Other - JV Partner Contribution	-	-
1.9	Net cash from / (used in) operating activities	1,144	8,472

2.	Cash flows from investing activities	
2.1	Payments to acquire:	
	(a) property, plant and equipment	-
	(b) tenements (see item 10)	-
	(c) investments	-
	(d) other non-current assets	-

+ See chapter 19 for defined terms

1 September 2016

# Appendix 5B Mining exploration entity and oil and gas exploration entity quarterly report

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) property, plant and equipment	-	-
	(b) tenements (see item 10)	-	-
	(c) investments	-	-
	(d) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	Net cash from / (used in) investing activities	• • • • • • • • • • • • • • • • • • •	-

3.	Cash flows from financing activities		
3.1	Proceeds from issues of shares	-	
3.2	Proceeds from issue of convertible notes	-	
3.3	Proceeds from exercise of share options	-	
3.4	Transaction costs related to issues of shares, convertible notes or options	-	
3.5	Proceeds from borrowings	-	
3.6	Repayment of borrowings	-	
3.7	Transaction costs related to loans and borrowings	- -	
3.8	Dividends paid	- -	
3.9	Other (provide details if material)	-	
3.10	Net cash from / (used in) financing activities		

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	8,416	1,088
4.2	Net cash from / (used in) operating activities (item 1.9 above)	1,144	8,472
4.3	Net cash from / (used in) investing activities (item 2.6 above)	-	-
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	-
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	9,560	9,560

+ See chapter 19 for defined terms 1 September 2016

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	6,879	5,747
5.2	Call deposits	2,681	2,669
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	9,560	8,416

6.	Payments to directors of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to these parties included in item 1.2	96
6.2	Aggregate amount of cash flow from loans to these parties included in item 2.3	-

6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2

Directors fees & salary \$43,866 (Previous Quarter \$87,460) Fully Serviced Office facility rental \$52,250 (Previous Quarter \$52,250) Company requested Consulting Fees \$NIL (Previous Quarter \$4,950)

## 7. Payments to related entities of the entity and their associates

- 7.1 Aggregate amount of payments to these parties included in item 1.2
- 7.2 Aggregate amount of cash flow from loans to these parties included in item 2.3

Current quarter \$A'000	
	- 1
	_
	_

7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2

8.	Financing facilities available Add notes as necessary for an understanding of the position	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
8.1	Loan facilities	-	-
8.2	Credit standby arrangements	-	-
8.3	Other (please specify)	-	-

8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.

Please note that the below estimated cash flows for the upcoming quarter have been prepared specifically excluding the proceeds from the delivery and processing ore from the Trouser Legs Mining Joint Venture mining operations.

9.	Estimated cash outflows for next quarter	\$A'000
9.1	Exploration and evaluation	300
9.2	Development	-
9.3	Production *	8,250
9.4	Staff costs	120
9.5	Administration and corporate costs	200
9.6	Other (provide details if material)	-
9.7	Total estimated cash outflows	8,870

\* Revenue expected to be received during the quarter per the signed Ore Sale and Purchasing Agreement – see ASX announcement 27<sup>th</sup> October, 2017 and 12<sup>th</sup> June, 2018.

10.	Changes in tenements (items 2.1(b) and 2.2(b) above)	Tenement reference and location	Nature of interest	Interest at beginning of quarter	Interest at end of quarter
10.1	Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced		See attached		
10.2	Interests in mining tenements and petroleum tenements acquired or increased		See attached		

#### Compliance statement

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

1.hr

Sign here:

(Company secretary)

Date: 30/04/19.

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 that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
- 2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
- 3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.

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

10.1 Interests in Mining Tenements relinquished, reduced or lapsed

Tenement Reference	Nature of Interest [note (4)]	Interest at beginning	Interest at end of
		of quarter	quarter

10.2 Interests in Mining Tenements acquired Or increased

Tenement Reference	Nature of Interest [note (4)]	Interest at beginning of quarter	Interest at end of quarter	
E31/1176	Granted	0%	100%	

Interests in Mining Tenements Disclosure in accordance with ASX Listing Rule 5.3.3.

Project / Tenement	Location	Interest at beginning of quarter	Interest at end of quarter	Joint Venture Partner / Farm- In Partner / Farm Out Partner
Pinjin East	West Australia			
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 31/1049		100%	100%	
E 31/1050		100%	100%	
E 31/1176		0%	100%	
Triumph	West Australia			
M 31/481		100%	100%	
Yundamindera	West Australia			
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		100%	100%	
E 39/1804		100%	100%	
E 39/1810		100%	100%	
E 39/1881		100%	100%	
P 39/5817		100%	100%	
P 39/5821		100%	100%	
P 39/5822		100%	100%	
P 39/5846		100%	100%	
M 39/1112		100%	100%	
Mt Bevan Iron Ore Joint Venture	West Australia			
E 29/510 -I		40%	40%	Legacy Iron Ore Limited
Deep South Edjudina - Pinjin Joint Venture	West Australia			
E 39/1301		80%	0%	Westgold Resources Ltd
M 39/1109		80%	80%	Westgold Resources Ltd
M 39/1110		80%	80%	Westgold Resources Ltd
Pinjin – Trouser Legs Joint Venture	West Australia			
G 31/4		70%	70%	GEL Resources
L 31/32		70%	70%	GEL Resources
L 31/65		70%	70%	GEL Resources
L 31/66		70%	70%	GEL Resources
L 31/68		70%	70%	GEL Resources
L 31/69 (A)		0%	0%	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

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#### Appendix 5B Mining exploration entity and oil and gas exploration entity quarterly report

Edjudina - Pinjin				
Joint Venture	West Australia			
E 31/789		80%	80%	Westgold Resources Ltd
Yundamindera Edjudina - Pinjin Joint Venture	West Australia			
E 39/1294		80%	80%	Westgold Resources Ltd
E 39/1295		80%	80%	Westgold Resources Ltd
Teutonic Bore				
Royalty *	West Australia			
E 37/902		0%	0%	Jabiru Metals
P 37/7351		0%	0%	Jabiru Metals
	* Royalty up to a maximum of \$1m subject to conditions			