ASX Announcement
13 December 2016

ASX CODE
BLK

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Matilda Resource Grows to 6Moz

Blackham Resources Ltd **(ASX: BLK) ("Blackham")** is pleased to provide a revised Mineral Resource estimate for the Matilda/Wiluna Gold Operation. This is the first resource associated with the Stage 2 expansion study aimed at growing production beyond 200,000ozpa.

- **Combined Matilda/Wiluna Measured, Indicated and Inferred Mineral Resources have grown to 6.0Moz (58Mt @ 3.2g/t)**
- **Open pit resources now 33Mt @ 2.0g/t for 2.1Moz**
  - **includes a Maiden East-West open pit resource of 8.6Mt @ 2.5g/t for 700koz (59% indicated)**
  - **Happy Jack – Creek Shear – Moonlight shear resources to be revised to include recently completed drill program**
- **Underground resources grow to 25Mt @ 4.9g/t for 3.9Moz**
  - **Golden Age Resource grows by 21%**
  - **Bulletin Resource now extends over 600m strike**
  - **High grade Essex Resource increases**
- **Growth in the open pit resources will underpin the base load feed and growth in the underground resources will provide important grade profile for Wiluna processing plant**
- **The significant growth in Mineral Resources confirms the need to expand the Wiluna plant gold production beyond 200kozpa.**

Blackham's Managing Director, Bryan Dixon, said "The latest Wiluna resource upgrade is likely to add significant base load open pit and underground feed for the Wiluna expansion study currently underway. Very few gold operations in first class jurisdictions have the scale to be +200,000ozpa operations. Projects of this size generally sit in billion or multi-billion dollar producers."

Photo 1: Last week's gold pour 1989oz dore

Following successful drilling campaigns, Measured, Indicated and Inferred Resource estimates have been updated at several open pit deposits at Matilda, as well as at the East and West pits and the Bulletin, Golden Age and Essex underground deposits at Wiluna. Total resources at Matilda and Wiluna are now **58Mt @ 3.2g/t** for **6.0Moz** up from 48Mt @3.3g/t for 5.1Moz Au **(**ASX release 27th June 2016). All resources are within a 20km radius of the Wiluna Gold Plant. A breakdown of resources is given below in Table 1.

Table 1 December 2016 Measured, Indicated and Inferred Resources (JORC 2012) for the Wiluna and Matilda Operations

Matilda Gold Project Resource Summary												
OPEN PIT RESOURCES												
	Measured			Indicated			Inferred			Total 100%		
Mining Centre	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au
Matilda Mine OP	0.2	2.1	13	7.6	1.8	435	4.3	1.4	200	12.0	1.7	**650**
Galaxy				0.4	3.1	42	0.4	2.2	25	0.8	2.7	**68**
Williamson Mine				3.3	1.6	170	3.8	1.6	190	7.1	1.6	**360**
Wiluna OP*				5.0	2.5	410	3.6	2.5	290	8.6	2.5	**700**
Regent				0.7	2.7	61	3.1	2.1	210	3.8	2.2	**271**
Stockpiles				0.3	1.0	8				0.3	1.0	**8**
OP Total	**0.2**	**2.1**	**13**	**17**	**2.0**	**1,126**	**15**	**1.9**	**915**	**33**	**2.0**	**2,057**
UNDERGROUND RESOURCES												
	Measured			Indicated			Inferred			Total 100%		
Mining Centre	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au
Matilda Mine UG				0.1	2.5	10	0.6	3.6	70	0.7	3.4	**80**
Wiluna				10.0	5.3	1670	13.0	4.7	2010	23	4.9	**3,680**
Golden Age				0.5	5.3	81	0.9	3.7	110	1.4	4.3	**191**
UG Total				**11**	**5.2**	**1,761**	**15**	**4.7**	**2,190**	**25**	**4.9**	**3,951**
Grand Total	**0.2**	**2.1**	**13**	**28**	**3.2**	**2,887**	**30**	**3.3**	**3,105**	**58**	**3.2**	**6,008**

1. Wiluna Open Pit Resources only include the East and West Pit reported from inside an A$1,800oz optimised shell.
2. Mineral Resources are reported inclusive of Ore Reserves and include all exploration and resource definition drilling information, where practicable, up to 2nd November 2016.
3. Mineral Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location shape and continuity of the occurrence and on the available sampling results. The figures in the above table are rounded to two significant figures to reflect the relative uncertainty of the estimate.
4. Cut off grades used in the estimations vary between deposits and are given in the individual Mineral Resource tables and Table 1

Wiluna Resource Updates

East and West Lodes

A new open pit resource model has been completed for the East and West Lodes based on historic and recent drilling. Mineralisation was previously modelled using a 4.0g/t lower-cut focusing on high grade underground mining opportunities. However, significant lower grade mineralisation which potentially can be extracted from an open pit was not captured by the previous interpretation. This mineralisation has been re-modelled above a 0.3g/t lower-cut and incorporated into an updated resource and reported within an A$1,800/oz optimised pit shell. Total Indicated and Inferred (JORC 2012) open pit resources for the East and West Lodes within this shell comprise **8.6Mt @ 2.5g/t** for **700,000oz** (Table 2).

Table 2 December 2016 Measured, Indicated and Inferred Resources (JORC 2012) for the East and West Lodes

Mining Centre	Indicated			Inferred			Total		
	Tonnes (t)	Au (g/t)	Au (Oz)	Tonnes (t)	Au (g/t)	Au (Oz)	Tonnes (t)	Au (g/t)	Au (Oz)
East/West OP[1]	4,970,000	2.5	410,000	3,580,000	2.5	290,000	**8,550,000**	**2.5**	**700,000**
East/West Lode UG[2]	1,490,000	5.6	270,000	5,150,000	5.0	820,000	**6,640,000**	**5.1**	**1,090,000**
Total	**6,460,000**	**3.2**	**680,000**	**8,730,000**	**4.0**	**1,110,000**	**15,190,000**	**3.6**	**1,790,000**

1 Open pit cut off grades: 0.5g/t for oxide and a 1.0g/t lower cut for transitional and fresh.
2 Underground resources are reported above 2.0g/t

Underground resources have been modelled using a 4.0g/t lower cut and reported above a 2.0g/t outside the A$1800/oz shell.

The re-evaluation of the East and West lodes using open pit parameters has resulted in a significant increase in Mineral Resources at Wiluna. Pit optimisations using current open pit mining costs and historical sulphide ore processing costs (760,000tpa) indicates the potential for large pit cut backs on both the East and West pits (Figure 1). As outlined in an ASX release dated 7th December 2016, potentially economic mineralisation has been identified between the East and West pits during the latest drilling program. This mineralisation has not been included in the current Mineral Resource Estimate. It is likely to that this mineralisation will have a positive economic impact as it will lower the strip ratio and potential allow the East and West lodes to be mined further to the north encompassing the currently separate North pit. The areas shaded in pink in Figure 2 show the mineralised intercepts within 300m of surface which have not been included in the latest Mineral Resource.

A Mineral Resource estimate is currently underway for the Happy Jack to Bulletin pits (Figure 1) and it is anticipated that this will result in additional open pit resources.

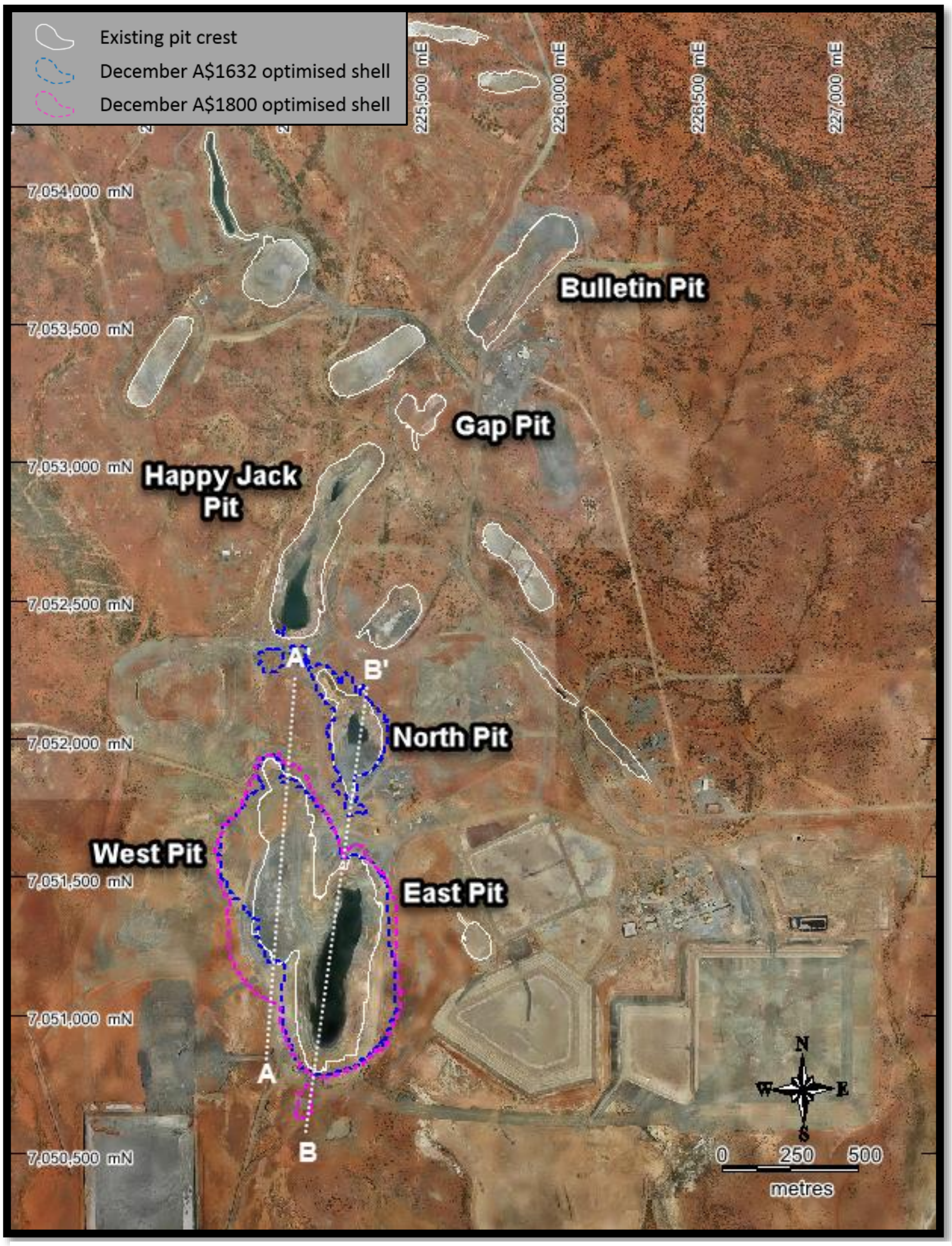

Figure 1 Plan view of Wiluna showing the $1632 and $1800 pit optimisations for the East and West Lodes. Resource estimates are currently being completed for the Happy Jack to Bulletin pits. Long section locations for the West Lode (A-A') and East Lode (B-B') are shown in

It is anticipated that both mining and processing costs per tonne will reduce if Blackham proceeds with its Stage 2 expansion plans which would potentially make more resources amenable to open pit mining. As part of the Expansion Study these mining and operating costs are being re-estimated.

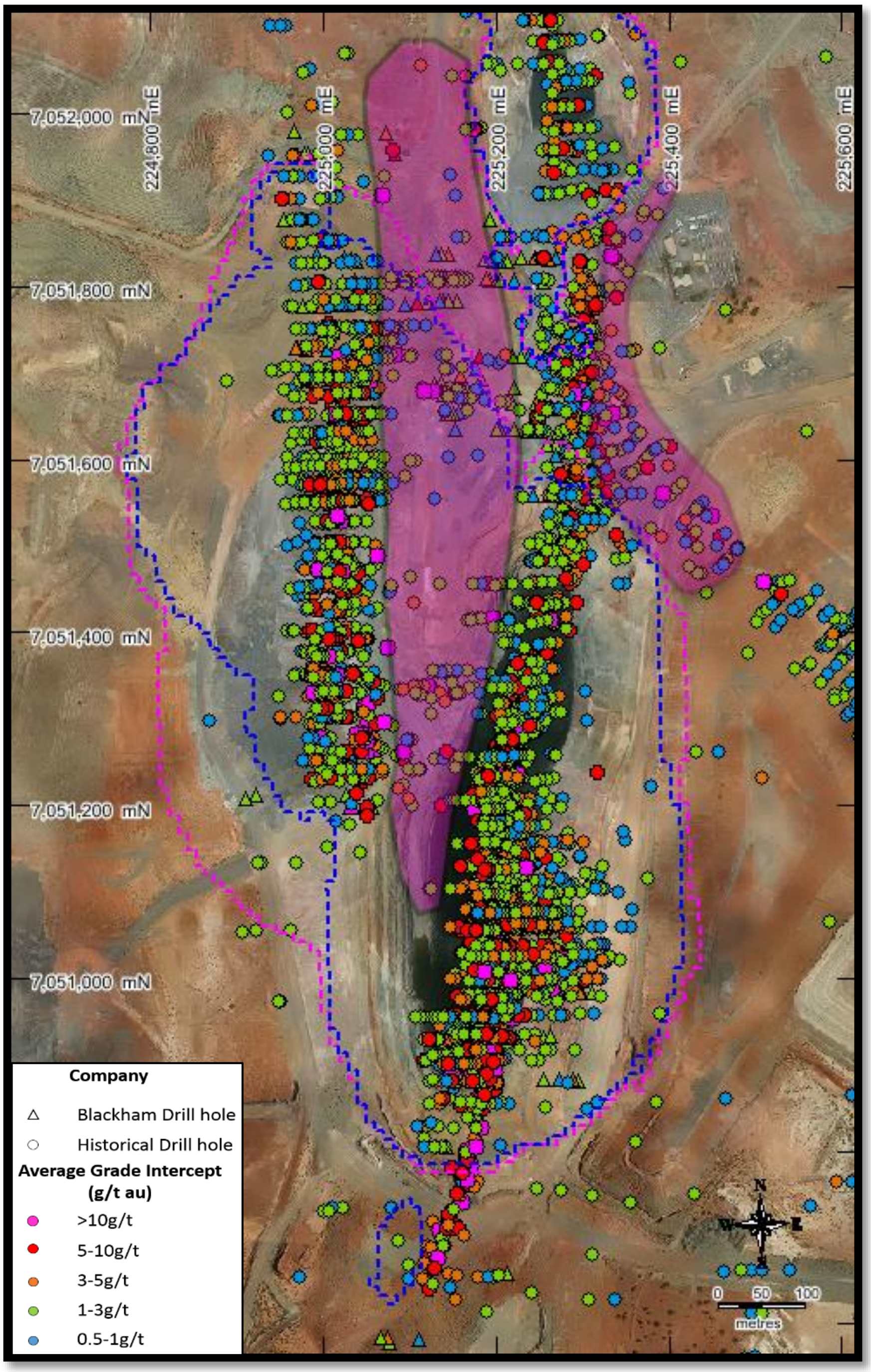

Figure 2 Pierce points of mineralised intercepts at depths shallower than 300 vertical metres. Pink polygons outline zones of mineralisation of mineralisation which has not been captured in the current Mineral Resource Estimate and pit optimisation studies.

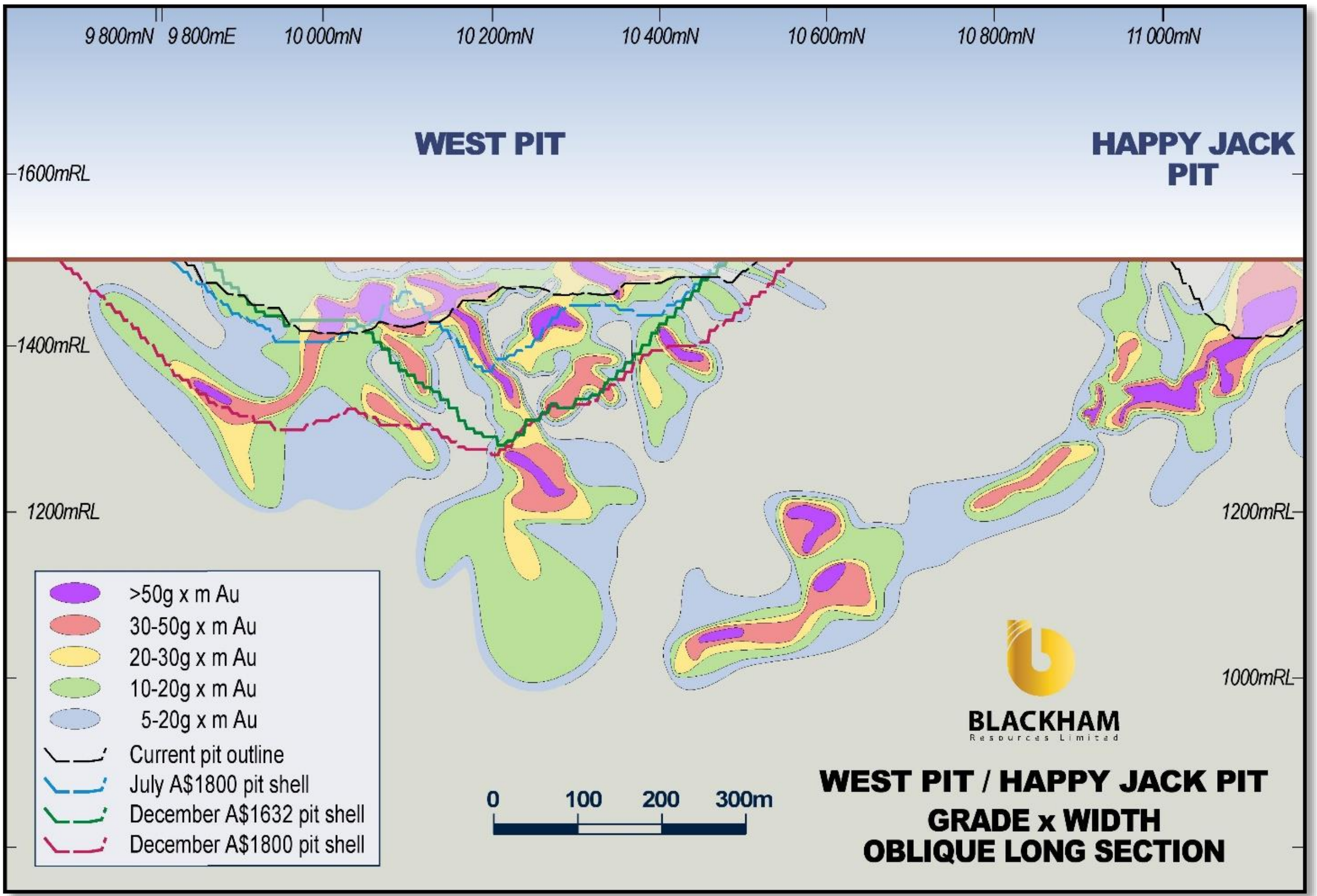

Figure 3 Long section of the West Lode showing grade x width and December 2016 pit optimisations. The July $1800/oz pit optimisation on old resource is shown for comparative purposes. Grade x width contours are intended to be used as a guide of the potential for open pit mining only

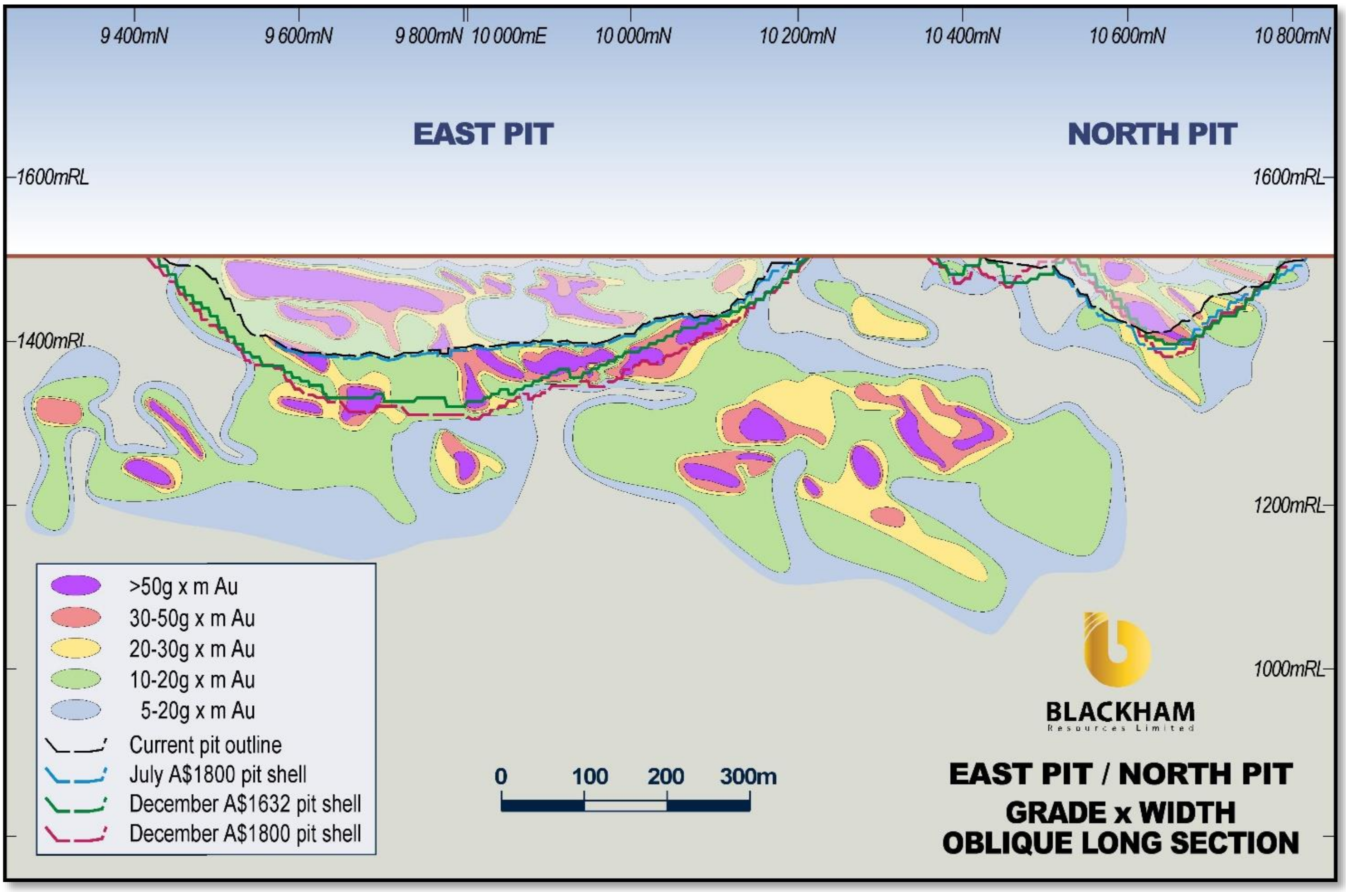

Figure 4 Long section of the East Lode showing grade x width and December 2016 pit optimisations. The July $1,800/oz pit optimisation on old resource is shown for comparative purposes. Grade x width contours are intended to be used as a guide of the potential for open pit mining only

Bulletin

Following the latest drilling program at Bulletin, the results of which were reported to the ASX on 16th August 2016, the Upper Bulletin resource estimate has been updated to **2.8Mt @ 4.3 g/t for 392,000oz Au** (45% Indicated) (Table 3). This represents an increase of 81,000oz and includes new estimates for Bulletin, Bulletin South and Lennon. Indicated Resources for Bulletin are now 1.5 Mt @ 3.7 g/t for 180,000oz Au which represents an increase of 39,000oz over the previous resource. A long section through Bulletin showing existing development and average block model grades is shown in Figure 5.

Table 3 December 2016 Measured, Indicated and Inferred Resources (JORC 2012) for the Bulletin and Lennon Lodes

Mining Centre	Indicated			Inferred			Total		
	Tonnes (t)	Au (g/t)	Au (Oz)	Tonnes (t)	Au (g/t)	Au (Oz)	Tonnes (t)	Au (g/t)	Au (Oz)
Bulletin Upper BLK[1]	1,032,000	4.0	131,000	1,191,000	5.2	198,000	**2,223,000**	**4.6**	**329,000**
HJK-Bulletin South[1]	255,000	2.4	20,000	123,000	3.0	12,000	**378,000**	**2.6**	**32,000**
Lennon[2]	208,000	4.1	27,000	35,000	3.7	4,000	**243,000**	**4.0**	**31,000**
Total	**1,495,000**	**3.7**	**178,000**	**1,349,000**	**4.9**	**214,000**	**2,844,000**	**4.3**	**392,000**

1 Cut of grades used: oxide - 0.6g/t, transitional - 1.00g/t, fresh - 3.00g/t
2 Cut of grades used: oxide - 0.6g/t, transitional - 1.00g/t, fresh - 2.00g/t

The Bulletin open pit was mined to a depth of approximately 70m during the 1990's, producing 70,000 ounces (660Kt of oxide ore at 2.8g/t and 83Kt of sulphide ore at 3.7 g/t); by 1994 the focus shifted to the high grade underground discovery underneath the pit. Mining studies are in progress which will focus on the Upper Bulletin underground with a view to revising the Mine Plan and Reserves in this area. As with the East and West Lodes significant mineralisation above a 0.3g/t lower-cut which could potentially be extracted from an open pit was not captured by the previous interpretations. Re-modelling of this mineralisation is underway and could potentially result in open pit resources being defined for Bulletin.

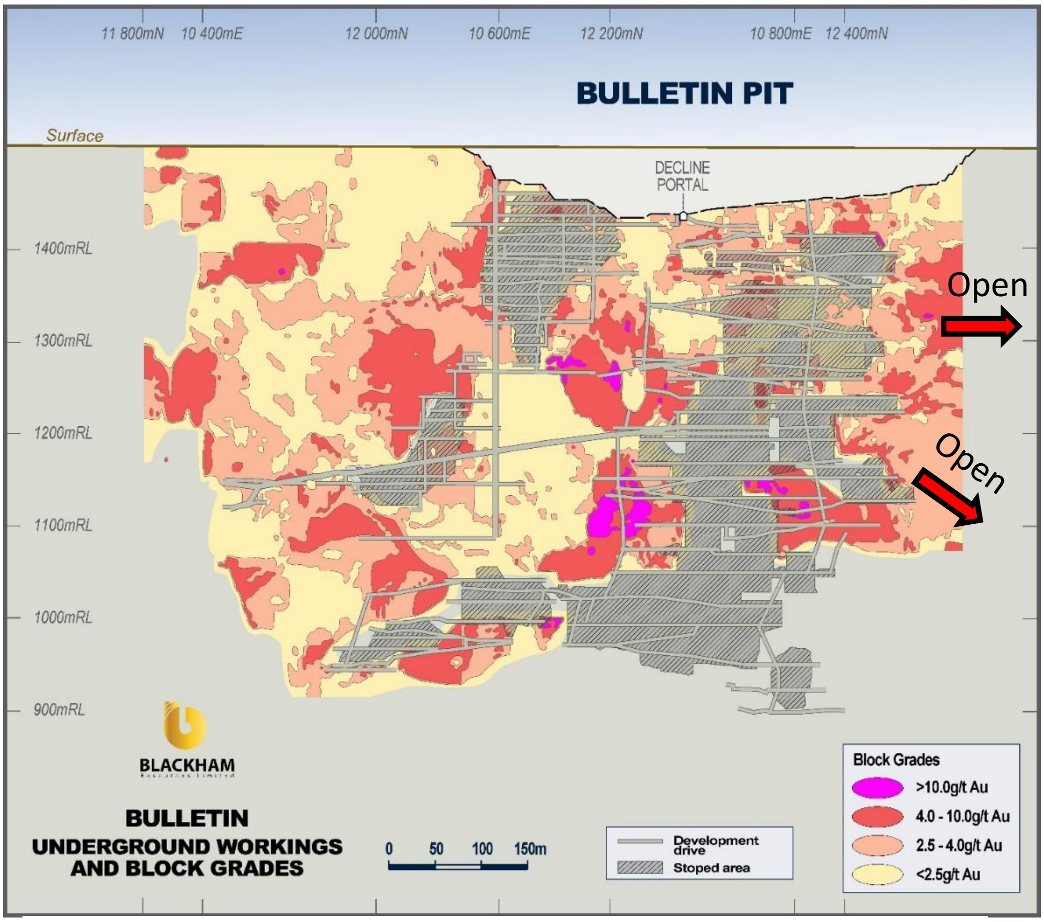

Figure 5 Bulletin long section showing block grades over > 600m of strike with existing underground development.

Golden Age Resource

Golden Age mineralisation is free milling ore with gold mineralisation located within a quartz reef. Results from an additional 39 underground drill holes completed since the previous Mineral Resource estimate has resulted in an increase in JORC 2012 Measured, Indicated and Inferred Resources (JORC 2012) for Golden Age to **1.4Mt @ 4.3g/t for 191,000oz Au** (previously 1.3Mt @ 3.8g/t for 158,000 oz Au). The high grade Golden Age middle resource of 290,000t @ 9.1g/t for 85,000oz is currently being mined. The Golden Age surface resource is currently being revised to include the latest drill program with a view to open pit mining. A breakdown of the Golden Age Resource is given in Table 4.

Table 4 December 2016 Measured, Indicated and Inferred Resources (JORC 2012) for the Golden Age orebody

Deposit	Measured			Indicated			Inferred			Total		
	Tonnes t	Au g/t	Au Oz	Tonnes t	Au g/t	Au Oz	Tonnes t	Au g/t	Au Oz	Tonnes t	Au g/t	Au Oz
Golden Age Upper (UG)[1]							460,000	3.2	50,000	**460,000**	**3.2**	**50,000**
Golden Age Middle (UG)[1]	41,000	7.3	10,000	176,000	9.7	55,000	73,000	8.5	20,000	**290,000**	**9.1**	**85,000**
Golden Age Lower (UG)[1]				37,000	5.5	7,000	131,000	4.5	19,000	**168,000**	**4.8**	**26,000**
Golden Age Surface (OP)[1]				220,000	1.7	10,000	250,000	1.9	20,000	**470,000**	**1.8**	**30,000**
Total	**41,000**	**7.3**	**10,000**	**433,000**	**5.2**	**72,000**	**914,000**	**3.7**	**109,000**	**1,388,000**	**4.3**	**191,000**

1 Cut of grades used: oxide and transition - 0.5g/t, fresh - of 2g/t above 200m and 3g/t below 200m vertical depth

Essex Resource

A resource update has been completed for the Essex deposit based on a re-evaluation of the previous model and 3 new drill-holes completed by Blackham. Previously a resource of 148,000 t @ 7.4g/t for 35,000 ounces was reported at a 2g/t top-cut. The updated resource now has a total of **666,000 t @ 4.52g/t for 97,000oz**. A breakdown of the resources is given in Table 5. Mining studies are underway on the Essex open pit and underground which has an existing exploration drive within 15m of the underground deposit.

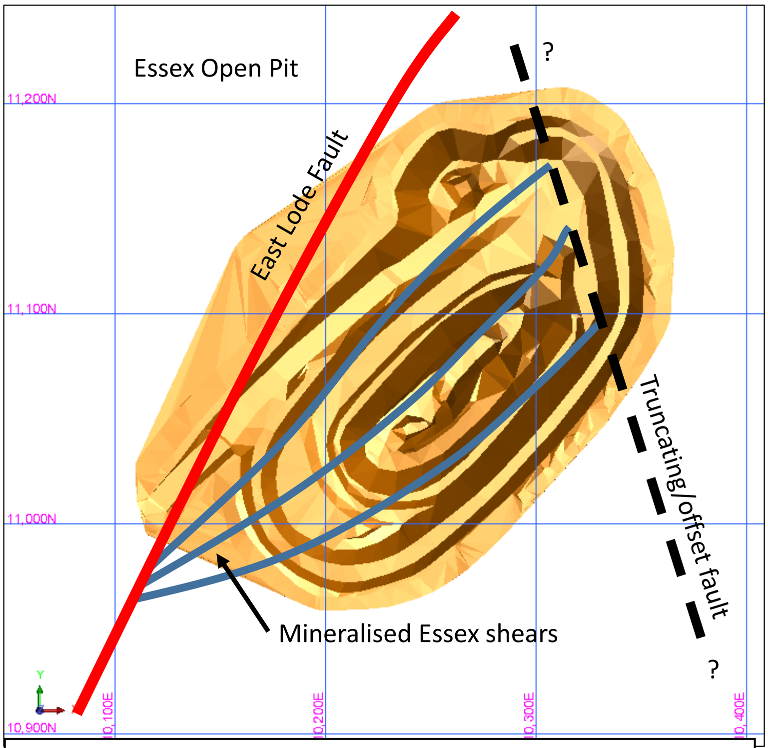

Figure 6 Plan view of the mineralised and cross-cutting structures at Essex.

The current resource appears to have some continuity at depth with a number of the main shear structures associated with the Essex mineralisation continuing at depth to potentially interact with the Golden Age middle zone. Further drilling at depth, immediately below the resource is necessary to identify these structures as currently there is no drilling in this area. Along strike it Essex mineralisation has less continuity as a fault appears to truncate and/or shear the lodes to the north and mineralisation merges with the East Lode Shear to the south.

Table 5 December 2016 Measured, Indicated and Inferred Resources (JORC 2012) for the Essex Lode

	Indicated			Inferred			Total		
	Tonnes (t)	Au (g/t)	Au (Oz)	Tonnes (t)	Au (g/t)	Au (Oz)	Tonnes (t)	Au (g/t)	Au (Oz)
Total[1]	**550,000**	**4.6**	**81,000**	**116,000**	**4.1**	**15,200**	**666,000**	**4.5**	**97,000**

1 Cut of grades used: oxide - 0.6g/t, transitional - 1.00g/t, fresh - 3.00g/t

Matilda Resource Update

Recent exploration holes have targeted new resource areas due to improved access to the existing Matilda M3 and M4 Pits as well as along strike from the M6 deposit and between the M1 and M5 deposits. This drilling has enabled updates to existing resource estimates at the M1 to M5 and M6 deposits.

- Matilda Resource M1 to M5 now stands at **11,310,000t @ 1.74g/t for 631,000oz.**
- M6 resource updated to include new drilling now stands at **536,000t @ 1.7g/t for 29,000oz** Au Indicated and Inferred.

A breakdown of the Matilda Mineral Resources is given in Table 6

The resource for the M6 deposit has also been updated to include recent infill drilling and now stands at **536,000t @ 1.7g/t for 29,000oz** Au Indicated and Inferred. The exploration team is still investigating the potential of the M6 deposits both along strike and down plunge.

Table 6 December 2016 Measured, Indicated and Inferred Resources (JORC 2012) for the Matilda Deposits

Area	Measured			Indicated			Inferred			Total		
	Tonnes (t)	Au (g/t)	Au (Oz)	Tonnes (t)	Au (g/t)	Au (Oz)	Tonnes (t)	Au (g/t)	Au (Oz)	Tonnes (t)	Au (g/t)	Au (Oz)
Matilda OP[1]	200,000	2.10	13,000	7,600,000	1.80	435,000	4,300,000	1.40	200,000	**12,000,000**	**1.70**	**650,000**
Matilda UG[2]				120,000	2.50	10,000	600,000	3.60	70,000	**720,000**	**3.40**	**80,000**
Total	**200,000**	**2.10**	**13,000**	**7,720,000**	**1.79**	**445,000**	**4,900,000**	**1.70**	**270,000**	**12,720,000**	**1.75**	**730,000**

1 Cut of grades used: 0.6g/t above 950m RL
2 Cut of grades used: 2.00g/t below 950m RL

The Matilda M1 to M5 resource is now being reported at a 0.6g/t cut-off above 950mRL and 2g/t below 950mRL. The 950mRL represents the depth of the current pit design. Below this is considered the UG portion of the deposit. Previously resources were reported above and below the 900mRL.

Wiluna Gold Deposit Summary

The Wiluna and Matilda gold deposits are located within the Wiluna Goldfield, close to the town of Wiluna at latitude 26º38'S, longitude 120º15'E on the Wiluna (SG 51-9)1:250 000 scale map. Perth, the nearest capital city, lies 750km to the southeast. The closest regional centres are Kalgoorlie, 540km to the south and Meekatharra, 183km to the west.

The gold deposits are categorised as orogenic gold deposits, with similarities to many other gold deposits in the Yilgarn region. The deposits are hosted within the Wiluna Domain of the Wiluna Greenstone Belt. Rocks in the Wiluna Domain have experienced greenschist-facies regional metamorphism and brittle deformation. The Wiluna Domain is comprised of a fairly monotonous sequence of foliated basalts and high-magnesium basalts, with intercalated felsic intrusions, lamprophyre dykes, metasediments, and dolerites.

Wiluna ores are typically oxide, refractory or free milling quartz mineralisation. The refractory ore has most gold occurring in either solid solution or as sub-microscopic particles within fine-grained sulphides. Mineralisation at Wiluna is principally controlled by the shear zones which have variable strike and dip orientations and typically flex along strike and down dip. These flexures in conjunction with favourable host rock composition act to form the best ore zones.

Gold mineralisation in the East and West lode is predominantly hosted within a series of theoletic and high magnesium basalts and generally strikes north-west. In East Lode there is one dominant shear with numerous hangwall splays which are north to north-northeast striking and easterly dipping (80°). These mineralised shear zones range in thickness from approximately 5m to 40m. Mineralisation at West Lode is hosted within a wide (up to 70m), steeply dipping, north-south striking anastomosing shear zone. This is characterised by two main shears linked by cross cutting shears of varying orientations.

The interpretation of the mineralisation was carried out using a methodical approach to ensure continuity of the geology and estimated mineral resource using Surpac software. For the East and West Lode open pit resource a lower cut-off grade of 0.3g/t was used where previous models had focussed on the high grade underground mineralisation and was modelled to a 4g/t lower cut.

All available geological data was used in the interpretation including mapping, drilling, oxidation surfaces and interpretations of high grade ore shoots. Only diamond and reverse circulation drilling samples were used in the final estimate however all available grade control data was used in the geological assessment.

A range of criteria were considered when addressing the suitability of the classification boundaries to the resource estimate.

- Geological continuity and volume models;
- Drill spacing and available mining information;
- Modelling technique
- Estimation properties including search strategy, number of informing composites, average distance of composites from blocks, number of drillholes used and kriging quality parameters.

The classification for this model was predominantly based on the estimation pass. With the first pass relating to an indicated resource and the second pass being inferred. The classification of the blocks was also visually checked and adjusted to remove any "spotted dog" effects. No measured resources were calculated. Estimated blocks that have been informed by predominantly historical drilling where QA/QC data has not been reviewed were assigned as inferred.

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Competent Persons Statement

The information contained in the report that relates to Exploration Targets and Exploration Results at the Matilda Gold Project is based on information compiled or reviewed by Mr Bruce Kendall, who is a full-time employee of the Company. Mr Kendall is a Member of the Australian Institute of Geoscientists and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which is 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 Kendall has given consent to the inclusion in the report of the matters based on this information in the form and context in which it appears.

The information contained in the report that relates to all other Mineral Resources is based on information compiled or reviewed by Mr Marcus Osiejak, who is a full-time employee of the Company. Mr Osiejak, is a Member of the Australian Institute of Mining and Metallurgy and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which is 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 Osiejak has given consent to the inclusion in the report of the matters based on this information in the form and context in which it appears.

With regard to the Matilda Gold Project Mineral Resources, the Company is not aware of any new information or data that materially affects the information included in this report and that all material assumptions and parameters underpinning Mineral Resource Estimates as reported in the market announcements dated 14 March 2016, 17 June 2016 and 27 June 2016 continue to apply and have not materially changed.

Forward Looking Statements

This announcement includes certain statements that may be deemed 'forward-looking statements'. All statements that refer to any future production, resources or reserves, exploration results and events or production that Blackham Resources Ltd ('Blackham' or 'the Company') expects to occur are forward-looking statements. Although the Company believes that the expectations in those forward-looking statements are based upon reasonable assumptions, such statements are not a guarantee of future performance and actual results or developments may differ materially from the outcomes. This may be due to several factors, including market prices, exploration and exploitation success, and the continued availability of capital and financing, plus general economic, market or business conditions. Investors are cautioned that any such statements are not guarantees of future performance, and actual results or performance may differ materially from those projected in the forward-looking statements. The Company does not assume any obligation to update or revise its forward-looking statements, whether as a result of new information, future events or otherwise.

JORC Code, 2012 Edition – Compliance

JORC Code, 2012 Edition – Table 1 (Matilda)

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *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*	• Historically (pre-Blackham Resources), RC drill samples were taken at predominantly 1m intervals, or as 2m or 4m composites. Historical core sampling is at various intervals so it appears that sampling was based on geological observations at intervals determined by the logging geologist. Blackham Resources has used reverse circulation drilling to obtain 1m samples from which ~3kg samples were collected using a cone splitter connected to the rig. In places 4m composites were obtained using spear sampling, with mineralised samples to be subsequently re-assayed using the original 1m splits. • For Blackham's (BLK) RC drilling, the drill rig (and cone splitter) is always jacked up so that it is level with the earth to ensure even splitting of the sample. It is assumed that previous owners of the project had procedures in place in line with standard industry practice to ensure sample representivity. • BLK Diamond drilling was completed to industry standard using varying sample lengths (0.3m to 1.2m) based on geology intervals. • BLK's sampling procedures are in line with standard industry practice to ensure sample representivity. Core samples are routinely taken from the right-hand-side of the bottom-of hole cut line. Drill core is measured by tape and compared to downhole core blocks consistent with industry standards. • At the laboratory, samples >3kg were 50:50 riffle split to become <3kg. The <3kg splits were pulverized to produce a 50g charge for fire assay. Historical assays were obtained using either aqua regia digest or fire assay, with AAS readings. • Blackham Resources analysed samples using Quantum Analytical Services (QAS), ALS laboratories or SGS Laboratories in Perth. Analytical method was Fire Assay with a 50g charge and AAS finish.

	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.	
Drilling techniques	• *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).*	• BLK DD data reported herein is HQ3 and PQ diameter, and orientated where possible using a Reflex ACT III tool. Downhole surveys are taken every 30m using a Reflex EZ-TRAC tool. Historical drilling data contained in this report includes RC, RAB and DD core samples. RC sampling utilized face-sampling hammer of 4.5” to 5.5” diameter, RAB sampling utilized open-hole blade or hammer sampling, and DD sampling utilized half core samples. It is unknown if historical core was orientated, though it is not material to this report. All Blackham RC drilling used a face-sampling bit.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	• For Blackham DD drilling, drill core recovery is measured by drillers and BLK staff, logged per drill run and stored in a digital database. For BLK RC drilling, chip sample recovery is visually estimated by volume for each 1m bulk sample bag, and recorded digitally in the sample database. For historical drilling, recovery data for drill holes contained in this report has not been located or assessed, owing to incomplete data records. Database compilation is ongoing. • For Blackham DD drilling, sample recovery is maximised by using best-practice drilling techniques, such as short drill runs, and split tubes. For depth mark-up and sampling the core is reconstructed in an orientation angle bar to ensure accuracy. Representivity of samples is maximised by routinely sampling half core on the right-hand side of the orientation line, and is checked through analysis of duplicate sampling results. RC drilling, sample recovery is maximized by pulling back the drill hammer and blowing the entire sample through the rod string at the end of each metre. Where composite samples are taken, the sample spear is inserted diagonally through the sample bag from top to bottom to ensure a full cross-section of the sample is collected. To minimize contamination and ensure an even split, the cone splitter is cleaned with compressed air at the end of each rod, and the cyclone is cleaned every 50m and at the end of hole, and more often when wet samples are encountered. Historical practices are not known, though it is assumed similar industry-standard procedures were adopted by each operator. For historical

		drilling with dry samples it is unknown what methods were used to ensure sample recovery, though it is assumed that industry-standard protocols were used to maximize the representative nature of the samples, including dust-suppression and rod pull-back after each drilled interval. For wet samples, it is noted these were collected in polyweave bags to allow excess water to escape; this is standard practice though can lead to biased loss of sample material into the suspended fine sample fraction. • For Blackham drilling, no such relationship was evaluated as sample recoveries were generally very good. For historical drilling no relationship was investigated as recovery data is not available.
Logging	• *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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Samples have been routinely logged for geology, including lithology, colour, oxidation, veining and mineralisation content. This level of detail is considered appropriate for Mineral Resource estimation. • Logging of geology and colour for example are interpretative and qualitative, whereas logging of mineral percentages is quantitative. • Holes were logged entirely. • Core photography was taken for BLK diamond drilling.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-*	• Sampling techniques and preparation are not known for all the historical drilling. Historical core in storage is generally half core, with some quarter core remaining; it is assumed that half core was routinely analysed, with quarter core perhaps having been used for check assays or other studies. Sawn half core HQ3 or quarter core PQ is routinely analysed by BLK. • Mention is made in historical reports of 1m riffle split samples for Chevron RC drilling, and of 1m and 2m or 4m composites for Agincourt drilling. For Blackham drilling, 1m samples were split using a cone splitter. 4m composite samples were collected with a spear tube where mineralisation was not anticipated. Most samples were dry; the moisture content data was logged and digitally captured. Where it proved impossible to maintain dry samples, at most three consecutive wet samples were obtained before drilling

	sampling stages to maximise representivity of samples. • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	was abandoned, as per procedure. • RC sampling with riffle or cone splitting and spear compositing is considered standard industry practice. • Half-core HQ3 sampling and quarter core PQ are considered standard industry practice for this style of mineralisation. Quarter coring of PQ was selected due to the larger sample volume relative to HQ3, and the desire to retain maximum sample volume for other metallurgical tests. • Boyd crushing to -2mm for samples >3kg is completed owing to the coarse nature of gold nuggets, prior to obtaining a <3kg sub-split for pulverisation. For RC sampling, riffle splitting and half-core splitting are industry-standard techniques and considered to be appropriate. • Field duplicates were collected every 40m down hole for BLK holes by taking a 50:50 split from the Boyd crusher / splitter. Analysis of results indicated good correlation between primary and duplicate samples. Chevron collected field duplicates at 1:20 ratio for the majority of historical RC drilling; samples showed good repeatability above 5g/t, though sample pairs show notable scatter at lower grades owing to the nugget effect. It is not clear how the historical field duplicates were taken for RC drilling. • Sample sizes are considered appropriate for these rock types and style of mineralisation, and are in line with standard industry practice.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *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.* • *Nature of quality control procedures adopted*	• Fire assay is a total digestion method, whereas Aqua Regia is a partial digestion method. The lower detection limits of 0.01ppm or 0.02ppm Au used at various times are considered fit for purpose. For Blackham drilling, Bureau Veritas, Genalysis, ALS, SGS and QAS completed the analyses using industry best-practice protocols. These are globally-recognized and highly-regarded companies in the industry. • No geophysical tools were required as the assays directly measure gold mineralisation. For Blackham drilling, down-hole survey tools were checked for calibration at the start of the drilling program and every two weeks. • Comprehensive programs of QAQC have been adopted since the 1980's. • BLK drilling: certified reference material and blanks were submitted at a 1:40 ratio. A lab barren quartz flush is requested following predicted high grade (e.g. visible gold). Check samples are routinely submitted to an umpire lab at 1:40 ratio. Analysis of results confirms the accuracy and precision of the

	(eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	assay data. • Chevron inserted standards, blanks and field duplicates at 1:20 ratios; the Chevron data relates to the majority of in-pit drilling at Matilda. • Results show good correlation between original and repeat analyses with very few samples plotting outside acceptable ranges (+/- 20%). A recognised laboratory has been used for historical analyses (Classic Labs, Analabs, ARM).
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• BLK's significant intersections are verified by alternative company personnel. For historical results, significant intersections can't be independently verified. However, database validation has been done to ensure the latest assay set appears i.e. where intervals have been sub-split the newest assays are given priority. • Some holes in the DD program have been designed to twin historical RC and BLK RC drilling; results broadly match the DD results. • Data is stored in Datashed SQL database. Internal Datashed validations and validations upon importing into Micromine were completed, as were checks on data location, logging and assay data completeness and down-hole survey information. QAQC and data validation protocols are contained within Blackham's manual "Blackham Exploration Manual 2015". • Conversion of lab non-numeric code to numeric for estimation.
Location of data points	• *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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Blackham's drill collars are routinely surveyed using a DGPS with centimetre accuracy. All historical drill holes at Matilda appear to have been accurately surveyed. • MGA Zone 51 South. • Height data (Australian height datum) is collected with DGPS and converted to local relative level using a factor. Prior to DGPS surveys, relative levels are estimated based on data for nearby historical holes. • A topographical survey has been flown with 30cm vertical accuracy, which has been used to determine historical pre-Blackham collar RL's.

Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	• Blackham's exploration holes are generally drilled 25m apart on east-west sections, on sections spaced 50m apart north-south. • Using Blackham's drilling and historical drilling, a spacing of approximately 12.5m (on section) by 20m (along strike) is considered adequate to establish grade and geological continuity. Areas of broader drill spacing have also been modelled but with lower confidence. • The mineralisation lodes show sufficient continuity of both geology and grade between holes to support the definition of 2012 JORC compliant resources. • Samples have been composited only where mineralisation was not anticipated. Where composite samples returned significant gold values, the 1m samples were submitted for analysis and these results were prioritized over the 4m composite values. • RC Samples have been collected on 1m lengths. All assay intervals are in multiples of 1m so there are no residual excluded intervals. Diamond Drill core is logged and divided into sample intervals that have a minimum sample length of 0.3m and a maximum sample length of 1.2m. Geological boundaries are typically used to determine intervals. Most sample lengths are at 1m intervals and statistical compositing is not applied until the estimation stage.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	• Drill holes were generally orientated towards the west to intersect predominantly steeply east-dipping mineralisation. However, around the historical pits optimal drill sites were not always available, so alternative orientations were used. Thus drill intercepts are not true thicknesses. • Such a sampling bias is not considered to be a factor as the RC technique utilizes the entire 1m sample. • For Blackham DD sampling, a cut line is routinely drawn at an angle 10 degrees to the right of the orientation line. Where no orientation line can be drawn, where possible samples are cut down the axis of planar features such as veins, such that the two halves of core are mirror images.
Sample security	• *The measures taken to ensure sample security.*	• Drill samples are delivered to Toll Ipec freight yard in Wiluna by Blackham personnel, where they are stored in a gated locked yard (after hours) until transported by truck to the laboratory in Perth. In Perth

		the samples are likewise held in a secure compound.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• For Blackham drilling, data has been validated in Datashed and upon import into Micromine. QAQC data has been evaluated and found to be satisfactory. Historical assay techniques and data have not been reviewed in detail owing to the preliminary stage of exploration work. • Blackham Resources staff have visited the ALS lab and confirmed that the sample handling systems and techniques meet the industry standard.

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	• *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.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.*	• The drilling is located wholly within M53/34. The tenements are owned 100% by Kimba Resources Ltd, a wholly owned subsidiary of Blackham Resources Ltd. The tenement sits within the Wiluna Native Title area, and a mining heritage agreement is in place with the Native Title holders. • The tenement is in good standing and no impediments exist. • Franco Nevada have royalty rights over the Matilda Mine mining leases. On the Matilda Mining Leases, a royalty of between 3 to 5% of gold revenue of is payable.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Historical artisanal mining was conducted on the M53/34 tenement and most historical workings have now been incorporated into the modern open pits. Modern exploration has been conducted on the tenement intermittently since the mid-1980's by various parties as tenure changed hands many times. This work has included mapping and rock chip sampling, geophysical surveys and extensive RAB, RC and core drilling for exploration, resource definition and grade control purposes. This exploration is considered to have been successful as it led to the eventual economic exploitation of several open pits during the late 1980's / early 1990's.The deposits remain 'open' in various locations and opportunities remain to find extensions to the known potentially economic mineralisation.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The gold deposits are categorized as orogenic gold deposits, with similarities to most other gold deposits in the Yilgarn region. The deposits are hosted within the Matilda Domain of the Wiluna greenstone belt. Rocks in the Matilda Domain have experienced Amhibolite-grade regional metamorphism. At the location of this drilling, the Matilda Domain is comprised of a fairly monotonous sequence of highly sheared basalts. Gold mineralisation is related to early deformation events, and it appears the lodes have also been disrupted by

		later shearing / faulting on the nearby Erawalla Fault, as well as later cross-faults.
Drill hole Information	• *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:* ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *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.*	• There is no new drilling information included in this release
Data aggregation methods	• *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.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No significant intercepts reported
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement*	• Various lode geometries are observed at Matilda, including east-dipping, west-dipping and flat-lying geometries. Generally the lodes strike north-northeast. Historical drilling was oriented vertically or at -60° west, the latter being close to optimal for the predominant steeply-east dipping orientation. Blackham's drill holes are not always drilled at optimal drill angles, i.e. perpendicular to mineralisation, owing to these various geometries, limitations of the rig to drilling >35° angled holes, and difficulty in positioning the rig close to remnant mineralisation around open pits. See significant intercepts Table 1 for estimates of

	to this effect (eg 'down hole length, true width not known').	mineralisation true widths.
Diagrams	• *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.*	• See body of this report.
Balanced reporting	• *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.*	• Full reporting of the historical drill hole database of over 40,000 holes is not feasible.
Other substantive exploration data	• *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.*	• Other exploration tests are not the subject of this report.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Follow-up resource definition drilling is likely, as mineralisation is interpreted to remain open in various directions. • Diagrams are provided in the body of this report.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary

Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• Data is validated upon upload into the Datashed database such that only codes within the various code libraries are accepted. Assay data is loaded from digital files. • Data is subsequently validated using Datashed validation macros, and then in Micromine and Surpac using validation macros. Data is checked for holes that are missing data, intervals that are missing data, missing intervals, overlapping intervals, data beyond end-of-hole, holes missing collar co-ordinates, and holes with duplicate collar co-ordinates.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• The site is regularly visited by the Competent Person, and no problems were identified.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• The deposit has previously been mined, which has confirmed the geological interpretation. • Geological data used includes lithology, mineral percentages (such as quartz veining and sulphides) to identify lode positions, and weathering codes and rock colour to model the weathering domains. Gold mineralisation is known to relate to quartz and sulphide content. Weathering codes are assumed to have been logged consistently by various geologists, though it is likely that some of the variations between drill holes are due to different logging styles or interpretations. • A high degree of confidence is placed on the geological model, owing to the tight drill spacing. Any alternative model interpretations are unlikely to have a significant impact on the resource classification. • At Matilda, the host rocks are a fairly monotonous sequence of basalts, thus geology is not the primary control on the location of mineralisation. Mineral percentages (such as quartz veining and sulphides) are used as a proxy for interpreting lode positions, as are weathering codes to model the weathering domains. • Significant mineralisation is hosted within moderately north-plunging shoots, which may represent boudinaged older tabular lodes. Thus lodes are continuous down-plunge, with lesser up-dip continuity.

Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The Matilda deposit is comprised of a number of domains; M1, M2, M3, M4, M5, M6, M8, M10 and Coles Find. These combined zones extend almost 5km along a strike of 330° and cover a width of approximately 1km. The deepest vertical interval is 395m at the M1 prospect.
Estimation and modeling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample*	• The sample domains were flagged into an Access database from a validated wireframe. • Only Reverse Circulation (RC) and Diamond Drilling were used in the estimate. • A composites string-file is created in Surpac with a 1.0 m composite length and a minimum percentage of sample to include at 30%. • Gold grades were estimated into the model by ordinary kriging using the block model field coding to constrain the estimate. • Soft boundaries was utilised between the oxidation surfaces. The majority of the deposit is currently situated within oxide. • Only samples contained within each individual ore wireframe were used for the estimate of that lode. • Incomplete historical production figures are available at a couple of the Matilda prospects. Blackham did not reconcile the current in-pit resource to the historical figures as not all grade control data was available, and the current interpretations may not match the mined lodes. • The production figures at the time mining operations were halted are not known. This estimation is comparable to that completed by Runge in 2013/14 and any significant differences have been accounted for through depletions, change in interpretation and additional drilling information. • Blackham has not made assumptions regarding recovery of by-products from the mining and processing of the Matilda Au resource. • No estimation of deleterious elements was carried out. Only Au was interpolated into the block model.

	spacing and the search employed.
	• *Any assumptions behind modeling of selective mining units.*
	• *Any assumptions about correlation between variables.*
	• *Description of how the geological interpretation was used to control the resource estimates.*
	• *Discussion of basis for using or not using grade cutting or capping.*
	• *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*
		• The parent block dimensions used were 10m NS by 2.5m EW by 5m vertical with sub-cells of 2.5m by 0.625m by 1.25m. The parent block size was selected on the basis of being approximately 50% of the average drill hole spacing immediately below the existing pits.
		• No assumptions were made on selective mining units.
		• Only Au assay data was available, therefore correlation analysis was not carried out.
		• The deposit mineralisation was constrained by wireframes constructed using a 0.5g/t Au cut-off grade . A minimum intercept of 2m was required with a maximum of 2m of internal dilution. The wireframes were applied as hard boundaries in the estimate.
		• The search ellipse was based on the ranges of continuity observed in the variograms along with considerations of the drillhole spacing and lode geometry. The search ellipse was rotated to best reflect the lode geometry and the geology as seen in the drilling and as described in the logging. This geometry was also supported by the variogram analysis.
		• Search passes were utilised to populate blocks using search ellipse ranges from 30 m to 60 m. Each pass incorporated a different set of sample selection criteria to ensure blocks were filled with an appropriate level of statistical confidence. A final pass of 120m was used to fill remaining blocks.
		• The relatively short search ranges for the first pass were applied in an attempt to limit grade smoothing within the very close (less than 20m) spaced drill holes.
		• Topcuts were determined from the aforementioned statistical analysis. A number of factors were taken into consideration when determining the top-cuts including:
		  ○ The disintegration point of the data on the probability plots;
		  ○ Having a coefficient of variance (CV) under 2.0; and
		  ○ Reviewing the model (block) grades against the composites.
		• The estimate was validated using a number of techniques including but not limited to:
		  ○ A visual comparison of block grade estimates and the drill hole data;

		○ A comparison of the composite and estimated block grades; ○ Use of SWATH plots. • A comparison of the estimated block grades for ordinary kriged models using different cut-off grades for the composites.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages and grades were estimated on a dry in situ basis. No moisture values were reviewed.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The nominal cut-off grade of 0.5g/t appears to be a natural cut-off between mineralised veins and host rock as determined from analysis of log probability plots of all samples at each prospect. This cut-off was used to define the mineralised wireframes. The Mineral Resource has been reported at a 0.6g/t Au cut-off above the 950mRL (which is currently the depth of the M1 pit design) and at a 2g/t cut-off below the 950mRL for M1, M2, M3, M4, M5, M6 and M10. M8 and Coles Find were reported at a 0.75g/t cut-off above the 900mRL as the estimation for these areas have remained unchanged. These values are based on BLK assumptions about economic cut-off grades for open pit and underground mining. BLK has access to previous mining reports from across all prospects at the Matilda deposit.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where*	• Blackham believes that a significant portion of the Matilda and Wiluna Deposit defined as Mineral Resources have reasonable prospects for eventual economic extraction by medium to large-scale open pit mining methods, taking into account current mining costs and metal prices and allowing for potential economic variations. Historical economic mining of similar deposits has occurred in the area.

	this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• The deposit has previously been mined and successfully processed for gold extraction. Blackham's DFS metallurgical testwork has shown the resource could be economically treated using standard gravity concentration / carbon-in-leach cyanidation technology. An average recovery of 93% is expected across the oxide+transitional+fresh material.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported.*	• Blackham Resources has submitted a detailed Mine Closure Plan to the Department of Mines and Petroleum. • No environmental, permitting, legal, taxation, socio-economic, marketing or other relevant issues are known, that may affect the estimate.

	Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• BLK has now collected 564 samples for bulk density test work. The results generally match the historic values and the values used in previous resource estimates including the work completed by RPM. • Values of 2.1 t/m3 for oxide, 2.4t/m3 for transitional and 2.8t/m3 for fresh material were used.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• A range of criteria were considered when addressing the suitability of the classification boundaries to the resource estimate. ○ Geological continuity and volume models; ○ Drill spacing and available mining information; ○ Modelling technique ○ Estimation properties including search strategy, number of informing composites, average distance of composites from blocks, number of drillholes used and kriging quality parameters • Typically the Measured portion of the resource was defined where the drill spacing was predominantly at 10m by 10m immediately below the existing pits, and continuity of mineralisation was robust. The Indicated portion of the resource was defined where the drill spacing was predominantly at 25m by

		25m and in some areas up to 40m by 40m, and continuity of mineralisation was strong. The Inferred Resource included the down depth lode extensions or minor lodes defined by sparse drilling. • Historical documents (including annual reports) provide detailed information on drilling and mining at the various prospects. A large proportion of the digital input data has been transcribed from historical written logs and validation checks have confirmed the accuracy of this transcription. The input data is comprehensive in its coverage of the mineralisation and does not favour or misrepresent in-situ mineralisation. The continuity of geology is well understood as existing pits and historical mining reports provide substantial information on mineralisation controls and lode geometry. Recent BLK infill drilling has supported the interpretations. Validation of the block model shows good correlation of the input data to the estimated grades. • The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• External audits have been completed and a comparison has been made with the previous resource estimate completed by RPM.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.*	• This resource estimate is considered appropriate for a definitive study into the mining of the Matilda deposit and reports global estimates. • The lode geometry has been verified through direct observation of existing open pit walls and from historical mining reports. Current targeted drilling has confirmed the down dip extensions of the main lodes across the deposit. BLK has a good understanding of the geology and mineralisation controls gained through study of all historical mining data. • The Mineral Resource statement relates to global estimates of tonnes and grade. • The deposit is currently being mined. Historical production figures supplied to Blackham relate to individual prospects at various stages of the mine life and no final production figures were available. Reconciliation of the current Mineral resource with historical production is not possible.

	• *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	

JORC Code, 2012 Edition – Table 1 (Wiluna)

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *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.*	• Wiluna data represents a portion of a large drilling database compiled since the 1930's by various project owners. Historically (pre-Blackham Resources), drill samples were taken at predominantly 1m intervals in RC holes, or as 2m or 4m composites in AC holes. Historical core sampling is at various intervals so it appears that sampling was based on geological observations at intervals determined by the logging geologist. Blackham Resources has used i. Reverse circulation drilling to obtain 1m samples from which ~3kg samples were collected using a cone splitter connected to the rig, and ii. HQ2 core with ½ core sampling. • Blackham's sampling procedures are in line with standard industry practice to ensure sample representivity. Core samples are routinely taken from the right-hand-side of the cut line. For

	• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *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.*	Blackham's RC and AC drilling, the drill rig (and cone splitter) is always jacked up so that it is level with the earth to ensure even splitting of the sample. It is assumed that previous owners of the project had procedures in place in line with standard industry practice to ensure sample representivity. • At the laboratory, samples >3kg were 50:50 riffle split to become <3kg. The <3kg splits were crushed to <2mm in a Boyd crusher and pulverized via LM5 to 90% passing 75µm to produce a 50g charge for fire assay. Historical assays were obtained using either aqua regia digest or fire assay, with AAS readings. • Blackham Resources analysed samples using ALS laboratories in Perth. Analytical method was Fire Assay with a 50g charge and AAS finish. Historically, gold analyses were obtained using industry standard methods; split samples were pulverized in an LM5 bowl to produce a 50g charge for assay by Fire Assay or Aqua Regia with AAS finish at the Wiluna Mine site laboratory.
Drilling techniques	• *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).*	• Blackham data reported herein is RC 5.5" diameter holes. Downhole surveys are taken every ~5 or 10m using a gyro tool Historical drilling data contained in this report includes RC, AC and DD core samples. RC sampling utilized face-sampling hammer of 4.5" to 5.5" diameter, RAB sampling utilized open-hole blade or hammer sampling, and DD sampling utilized NQ2 half core samples. It is unknown if core was orientated, though it is not material to this report. All Blackham RC drilling used a face-sampling bit.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	• For Blackham RC drilling, chip sample recovery is visually estimated by volume for each 1m bulk sample bag, and recorded digitally in the sample database. For DD drilling, recovery is measured by the drillers

	• *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	and Blackham geotechnicians and recorded into the digital database. Recoveries were typically 100% except for the non-mineralised upper 3 or 4m. For historical drilling, recovery data for drill holes contained in this report has not been located or assessed, owing to incomplete data records. Database compilation is ongoing. • RC drilling, sample recovery is maximized by pulling back the drill hammer and blowing the entire sample through the rod string at the end of each metre. Where composite samples are taken, the sample spear is inserted diagonally through the sample bag from top to bottom to ensure a full cross-section of the sample is collected. To minimize contamination and ensure an even split, the cone splitter is cleaned with compressed air at the end of each rod, and the cyclone is cleaned every 50m and at the end of hole, and more often when wet samples are encountered. Historical practices are not known, though it is assumed similar industry-standard procedures were adopted by each operator. For historical drilling with dry samples it is unknown what methods were used to ensure sample recovery, though it is assumed that industry-standard protocols were used to maximize the representative nature of the samples, including dust-suppression and rod pull-back after each drilled interval. For wet samples, it is noted these were collected in polyweave bags to allow excess water to escape; this is standard practice though can lead to biased loss of sample material into the suspended fine sample fraction. For DD drilling, sample recovery is maximised by the use of short drill runs (typically 1.5m) and triple tube splits for HQ3 drilling. • For Blackham drilling, no such relationship was evaluated as sample recoveries were generally excellent.
Logging	• *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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*	• Samples have been routinely logged for geology, including lithology, colour, oxidation, veining and mineralisation content. This level of detail is considered appropriate for exploration drilling. • Logging of geology and colour for example are interpretative and qualitative, whereas logging of mineral percentages is quantitative. • Holes were logged entirely. Geology data has not yet been located for some holes, database compilation is on-going. • Core photography was taken for BLK diamond drilling.

	• *The total length and percentage of the relevant intersections logged.*	
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• RC sampling with cone splitting, and 4m scoop composites compiled from individual 1m samples. • Sampling is RC. Mention is made in historical reports of 1m and 2m or 4m composites for Asarco drilling. For Blackham drilling, 1m RC samples were split using a cone splitter. Most samples were dry; the moisture content data was logged and digitally captured. Where it proved impossible to maintain dry samples, at most three consecutive wet samples were obtained before drilling was abandoned, as per procedure. AC samples were 4m composites; holes were abandoned when >3 consecutive wet samples were received to minimise sample contamination. • Boyd <2mm crushing and splitting is considered to be standard industry practice; each sample particle has an equal chance of entering the split chute. At the laboratory, >3kg samples are split so they can fit into a LM5 pulveriser bowl. At the laboratory, >3kg samples are split 50:50 using a riffle splitter so they can fit into a LM5 pulveriser bowl. • Field duplicates were collected approximately every 40m down hole for Blackham holes. Analysis of results indicated good correlation between primary and duplicate samples. RC duplicates are taken using the secondary sample chute on the cone splitter. AC duplicates were scooped in the field. It is not clear how the historical field duplicates were taken for RC drilling. • Riffle splitting and half-core splitting are industry-standard techniques and considered to be appropriate. Note comments above about samples through ‘stope’ intervals; these samples don’t represent the pre-mined grade in localized areas. • For historical drilling, field duplicates, blank samples and certified reference standards were collected and inserted from at least the early 2000’s. Investigation revealed sufficient quality control performance. No field duplicate data has been located or evaluated in earlier drilling. Field duplicates were collected every 20m down hole for Blackham holes. Analysis of results indicated good correlation between primary and duplicate samples. • Sample sizes are considered appropriate for these rock types and style of mineralisation, and are in line with standard industry practice. RC sampling with riffle or cone splitting and spear compositing is

		considered standard industry practice.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *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.* • *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.*	• Fire assay is a total digestion method. The lower detection limits of 0.01ppm is considered fit for purpose. For Blackham drilling, ALS completed the analyses using industry best-practice protocols. ALS is globally-recognized and highly-regarded in the industry. Historical assaying was undertaken at Amdel, SGS, and KalAssay laboratories, and by the on-site Agincourt laboratory. The predominant assay method was by Fire Assay with AAS finish. The lower detection limit of 0.01ppm Au used is considered fit for purpose. • No geophysical tools were required as the assays directly measure gold mineralisation. For Blackham drilling, down-hole survey tools were checked for calibration at the start of the drilling program and every two weeks. • Comprehensive programs of QAQC have been adopted since the 1980's. For Blackham drilling certified reference material, blanks and duplicates were submitted at approximately 1:20. Check samples are routinely submitted to an umpire lab at 1:20 ratio. Analysis of results confirms the accuracy and precision of the assay data. It is understood that previous explorers great Central Mines, Normandy and Agincourt employed QAQC sampling, though digital capture of the data is ongoing, and historical QAQC data have not been assessed. Results show good correlation between original and repeat analyses with very few samples plotting outside acceptable ranges (+/- 20%).
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Blackham's significant intersections have been verified by several company personnel including the database manager and exploration manager. For historical results, significant intersections can't be independently verified. However, database validation and cleaning has been done to ensure the latest assay set appears i.e. where intervals have been sub-split the newest assays are given priority. • Twinned holes are not reported herein, though Blackham has recently completed twin RC-DD holes and results will be analysed fully in coming resource estimation work. Drilling has been designed at different orientations, to help correctly model the mineralisation orientation. • Data is stored in Datashed SQL database. Internal Datashed validations and validations upon importing into Micromine were completed, as were checks on data location, logging and assay data completeness

		and down-hole survey information. QAQC and data validation protocols are contained within Blackham's manual "Blackham Exploration Geological Manual 2016v2". Historical procedures have not been sighted. • Conversion of lab non-numeric code to numeric for estimation.
Location of data points	• *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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• All historical holes appear to have been accurately surveyed to centimetre accuracy. Blackham's drill collars are routinely surveyed using a DGPS with centimetre accuracy, though coordinates reported herein are GPS surveyed to metre-scale accuracy. • Grid systems used in this report are Wil10 local mine grid and GDA 94 Zone 51 S. Drilling collars were originally surveyed in either Mine Grid Wiluna 10 or AMG, and converted in Datashed to MGA grid. • An accurate topographical model covering the mine site has been obtained, drill collar surveys are closely aligned with this. Away from the mine infrastructure, drill hole collar surveys provide adequate topographical control.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	• Blackham's exploration holes are generally drilled 25m apart on east-west sections, on sections spaced 50m apart north-south. • Using Blackham's drilling and historical drilling, a spacing of approximately 12.5m (on section) by 20m (along strike) is considered adequate to establish grade and geological continuity. Areas of broader drill spacing have also been modelled but with lower confidence. • Samples have been composited only where mineralisation was not anticipated. Where composite samples returned significant gold values, the 1m samples were submitted for analysis and these results were prioritized over the 4m composite values.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling*	• Drill holes were generally orientated perpendicular to targets to intersect predominantly steeply-dipping north-south or northeast-southwest striking mineralisation. Thus true thickness is approximately 2/3 of drilled thickness. • Such a sampling bias is not considered to be a factor as the RC technique utilizes the entire 1m sample.

	orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	
Sample security	• *The measures taken to ensure sample security.*	• It is not known what measures were taken historically. For Blackham drilling, Drill samples are delivered to McMahon Burnett freight yard in Wiluna by Blackham personnel, where they are stored in a gated locked yard (after hours) until transported by truck to the laboratory in Perth. In Perth the samples are likewise held in a secure compound.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• For Blackham drilling, data has been validated in Datashed and upon import into Micromine. QAQC data has been evaluated and found to be satisfactory.

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	• *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.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.*	• The drilling is located wholly within M53/6, M53/200, M53/44, M53/40, M53/30, M53/468, M53/96, M53/32, . The tenements are owned 100% by Matilda Operations Pty Ltd, a wholly owned subsidiary of Blackham Resources Ltd. • The tenements arein good standing and no impediments exist. • Franco Nevada have royalty rights over the Wiluna Mine mining leases of between 3 to 5% of gold revenue payable.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Modern exploration has been conducted on the tenement intermittently since the mid-1980's by various parties as tenure changed hands many times. This work has included mapping and rock chip sampling, geophysical surveys and extensive RAB, RC and core drilling for exploration, resource definition and grade control purposes. This exploration is considered to have been successful as it led to the eventual economic exploitation of several open pits during the late 1980's / early 1990's.The deposits remain 'open' in various locations and opportunities remain to find extensions to the known potentially economic mineralisation.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The gold deposits are categorized as orogenic gold deposits, with similarities to most other gold deposits in

		the Yilgarn region. The deposits are hosted within the Wiluna Domain of the Wiluna greenstone belt.
Drill hole Information	• *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:* ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *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.*	• There is no new drilling information included in this release
Data aggregation methods	• *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.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No significant intercepts reported
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement*	• Lode geometries at Wiluna are generally steeply east or steeply west dipping. Generally the lodes strike north-northeast. Historical drilling was oriented vertically or at -60° west, the latter being close to optimal for the predominant steeply-east dipping orientation.

	to this effect (eg 'down hole length, true width not known').	
Diagrams	• *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.*	• See body of this report.
Balanced reporting	• *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.*	• Full reporting of the historical drill hole database of over 80,000 holes is not feasible.
Other substantive exploration data	• *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.*	• Other exploration tests are not the subject of this report.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Follow-up resource definition drilling is likely, as mineralisation is interpreted to remain open in various directions. • Diagrams are provided in the body of this report.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary

Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.*
	• *Data validation procedures used.*
		• All data has been uploaded using Datashed which incorporates a series of internal checks.
		• The Wiluna dataset has been validated in Datashed and Surpac using internal validation macros and checks. Holes have been checked and corrected where necessary for:
		  • Intervals beyond EOH depth
		  • Overlapping intervals
		  • Missing intervals
		  • Holes with duplicate collar co-ordinates (i.e. same hole with different names)
		  • Missing dip / azimuth
		  • Holes missing assays
		  • Holes missing geology

Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• The site is regularly visited by the Competent Person, and no problems were identified.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.*	• The interpretation of the mineralisation was carried out using a methodical approach to ensure continuity of the geology and estimated mineral resource using Surpac software. The confidence in the geology and the associated mineralisation is high. • All available geological data was used in the interpretation including mapping, drilling, oxidation surfaces and interpretations of high grade ore shoots. Only diamond and reverse circulation drilling samples were used in the final estimate however all available grade control data was used in the geological assessment. • For the East and West Lode open pit resource a lower cut-off grade of 0.3g/t was used. Previous models

	• *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	had focussed on the high grade underground mineralisation and was modelled to a 4g/t lower cut. • No alternate interpretations have been completed. The current interpretation follows similar methodology to that used historically. • Drill logging has been used to constrain the 3D wireframes. • Gold mineralisation is predominantly associated with second to third order north and northeast trending brittle to brittle-ductile dextral strike-slip faults, localised at dilational bends or jogs along faults, at fault intersections, horsetail splays and in subsidiary overstepping faults.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• Strike length = ~ 3700 m • Width (total of combined parallel lodes) = ~ 800 m • Depth (from surface) = ~ 0 to 1000 m
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*	• The sample domains were flagged into an Access database from a validated wireframe. • A composites string-file was then created in Surpac with a 1.0 m composite length and a minimum percentage of sample to include at 30%. • Only Reverse Circulation (RC) and Diamond Drilling were used in the estimate. • Resource estimation for the Wiluna mineralisation was completed using Ordinary Kriging for Gold (Au) and for Sulphur (S). Blockmodel field coding was used to constrain the estimate. • Soft boundaries were utilised between the oxidation surfaces. Only samples contained within each individual ore wireframe were used for the estimate of that lode. • A number of previous resource estimates and studies have been undertaken and were reviewed to assist in the development of this resource estimate. • The modelled wireframes were used to create a blockmodel with a user block size varying depending on orebody geometry, estimation parameters and drillhole spacing. • Specifically for the Golden Age narrow vein a user block size of 2mE by 2mN by 2mRL. The model used variable sub-blocking to 0.5mE by 0.5mN by 0.5mRL. The smaller block sizes are based on the narrow nature of the Golden Age ore body and the corresponding data density.

	• *The assumptions made regarding recovery of by-products.*
	• *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).*
	• *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*
	• *Any assumptions behind modelling of selective mining units.*
	• *Any assumptions about correlation between variables.*
	• *Description of how the geological interpretation was used to control the resource estimates.*
	• *Discussion of basis for using or not using grade cutting or capping.*
	• *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*
		• The search ellipses used were based on the ranges of continuity observed in the variograms along with considerations of the drillhole spacing and lode geometry. The search ellipse was rotated to best reflect the lode geometry and the geology as seen in the drilling and as described in the logging. This geometry was checked to ensure that it was also supported by the variogram analysis.
		• Ordinary kriging parameters were also checked against those used in previous resource estimates and variography studies. No significant differences were discovered.
		• Three search passes were used to populate blocks using search ellipse distances based on ranges observed in the variograms. Typically the first pass was no more than 30 m and a second pass no more than 60 m. Each pass incorporated a different set of sample selection criteria to ensure blocks were filled with an appropriate level of statistical confidence.
		• For the first two passes at least 3 individual drillholes were required to complete the estimate.
		• Topcuts were determined from statistical analysis. A number of factors were taken into consideration when determining the top-cuts including:
		  ○ The disintegration point of the data on the probability plots;
		  ○ Having a coefficient of variance (CV) under 2.0; and
		  ○ Reviewing the model (block) grades against the composites.
		• The estimate was validated using a number of techniques including but not limited to:
		  ○ A visual comparison of block grade estimates and the drill hole data;
		  ○ A comparison of the composite and estimated block grades;
		  ○ A comparison of the estimated block grades for the ordinary kriged model against an inverse distance model.
		  ○ A comparison of the estimated block grades for ordinary kriged models using different cut-off grades for the composites.
		  ○ A comparison of the estimated block grades against the composite grades along northings.

Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the*	• Tonnages are estimated on a dry basis.

	moisture content.	
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The nominal cut-off grade of applied for the individual resource areas appears to be a natural cut-off between mineralised veins and host rock as determined from analysis of log probability plots of all samples at each prospect. • The East and West lode open pit resource was reported at 0.5g/t cutoff in oxide and at 1.0g/t cutoff in transitional and fresh in $1800 Shell while the underground was reported at 2.00g/t in fresh rock outside the shell. • A global reporting cut-off grade of 3.00g/t was applied to the Golden Age underground resource. This is based on the understanding that a variety of underground mining techniques (including but not exclusive to) air-legging may be used. • For the remaining resources a cut-off of 0.6g/t was applied in the in the oxide and 1.0g/t in transitional when relevant. In fresh rock less than 200m below the surface a 2.0g/t cut-off was applied for the remaining resources.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the*	• No specific mining factors or assumptions have been applied.

	basis of the mining assumptions made.	
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• Wiluna ores are typically extremely refractory, with most gold occurring in either solid solution or as submicroscopic particles within fine-grained sulphides. Historically Au recovery through the Wiluna BIOX plant averaged 83%. Any sulphide mineralisation would be treated through the same processing plant and therefore it is assumed that recoveries will be similar. • Golden Age mineralisation is free milling/oxide gold; this is located throughout the quartz but appears more concentrated where there are stylolites. There is commonly a strong base metals signature with galena, chalcopyrite, sphalerite and pyrite being common. These areas also include higher grades but the gold is not associated with the sulphides as with the refractory ore. The mineralization is mainly in the quartz reef but there are some splays of quartz, especially to the footwall which can contain gold.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be*	• No environmental, permitting, legal, taxation, socio-economic, marketing or other relevant issues are known, that may affect the estimate.

	well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Bulk densities were assigned as 1.80 t/m^3 for oxide, 2.40 t/m^3 for transitional and 2.80 t/m^3 • A total of 16,206 bulk density determinations have been collected by extensive sampling of diamond drill core in Calais – Henry 5, East Lode North and Calvert areas throughout the orebody and in wallrock adjacent to the mineralisation. All sections of the underground resource are in primary rock, and Bulk Density values are relatively uniform throughout. • Bulk Density determinations were completed by Apex staff for every assayed interval since the commencement of Apex's involvement with the project to the end of 2008. In addition, in areas where Apex bulk density determinations are considered too sparse, pre-Apex diamond core has been used for determinations.

Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.*
	• *Whether appropriate account has been taken of all relevant factors (ie relative*
		• A range of criteria were considered when addressing the suitability of the classification boundaries to the resource estimate.
		   ○ Geological continuity and volume models;
		   ○ Drill spacing and available mining information;
		   ○ Modelling technique

	confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	○ Estimation properties including search strategy, number of informing composites, average distance of composites from blocks, number of drillholes used and kriging quality parameters. • The classification for this model was predominantly based on the estimation pass. With the first pass relating to an indicated resource and the second pass being inferred. • The classification of the blocks was also visually checked and adjusted to remove any "spotted dog" effects. No measured resources were calculated. • Estimated blocks that have been informed by predominantly historical drilling where QA/QC data has not been reviewed were assigned as inferred.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• Audits have been undertaken on the resource estimates completed by Apex Minerals in 2012. No major issues were discovered and recommendations made from those audits have been assessed and included where required in subsequent estimates.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and,*	• This resource estimate is intended for both underground and open pit mining assessment and reports global estimates.

	if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	