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ABN: 18 119 887 606

**PRINCIPAL AND
REGISTERED OFFICE**
Blackham Resources Ltd
L2, 38 Richardson Street
West Perth WA 6005

POSTAL ADDRESS
PO Box 1412
West Perth WA 6872

www.blackhamresources.com.au

P: +61 8 9322 6418
F: +61 8 9322 6398

Wiluna open pits to stretch over 3.5kms

Blackham Resources Ltd **(ASX: BLK) ("Blackham")** is pleased to provide a revised Mineral Resource estimate for the Wiluna North open pits encompassing the Happy Jack, Bulletin, Squib, Essex, Golden Age North and Starlight orebodies at the Wiluna Gold Operation. Mineral Resource estimates are currently underway for the Adelaide – Moonlight areas and will be reported later this quarter.

Highlights

- **Wiluna North open pit resources now sit at 7.3Mt @ 2.69g/t for 630koz (81% Indicated)**
   - **Increase of 310,000oz or 103%**
   - **High grades for open pit**
   - **65% of the resource falls into a A$1,400/oz pit shell**
   - **Previous Ore Reserves of 180,000oz @ 2.7g/t Au**
   - **Updates to pit designs and Ore Reserves underway**
- **Wiluna open pit resources now total 17Mt @ 2.8g/t for 1.5Moz which have been delineated at a cost of $7/resource oz**
- **Resource continuity confirmed with likely pit stretching over 3.5kms**
- **Total Resource now 65Mt @ 3.1g/t for 6.5Moz**

The latest Mineral Resource estimate for the Wiluna North lodes is based on an additional ~23,000m of RC and diamond drilling completed between March and May 2017 which was very successful in proving the continuity of mineralisation. This drilling has resulted in extensions to mineralisation at the Happy Jack - Gap lodes and confirmed the presence of additional footwall lodes to the west of the main Bulletin lode. Mining studies which will allow an updated open pit Ore Reserve estimate for Wiluna North are underway.

Blackham's Managing Director, Bryan Dixon said "Since drilling commenced in September last year a total of ~$10.5M has been spent on Resource and Reserve definition drilling on the Wiluna open pits. In this time, the Mineral Resource has grown from 80,000oz to 1,505,000oz in just one year, of which 76% is classified as Indicated. This represents a very attractive resource addition cost of $7/oz. This large open pit resource and reserves underpin the growth opportunity as seen in the Expansion PFS released late in August. We also expect a significant reserve upgrade to flow from the latest resource upgrade."

Wiluna Resource Update

Pit optimisations based on drilling completed since September 2016 has confirmed that a shear zone which stretches over 3.2km from the West Lode in the South to the Bulletin Lode in the north contains economic mineralisation over the majority of its strike length. Mineralisation within a second, 1.8km long sub-parallel shear zone encompassing the East, North and Essex lodes is also economic over the majority of its strike length (Figure 1 and Figure 2). Drilling during 2017 has focused on extending mineralisation and improving the confidence level of the Mineral Resource Estimates to allow Ore Reserves to be estimated as part of the expansion study A resource update for the East and West lodes comprising **8.5Mt @ 2.8g/t for 770koz** was released to the ASX on the 3rd August. Following 23,000m of infill drilling, Measured, Indicated and Inferred Resource estimates have now been updated for the Wiluna North lodes encompassing the Happy Jack, Squib, Starlight, Gap, Essex, Golden Age North and Bulletin orebodies. The Wiluna North open pit Mineral Resource reported within A$1,800/oz optimised pit shells is now **7.3Mt @ 2.69g/t for 631Koz** of which 81% is classified as Indicated. Total open pit resources at Wiluna are now **16.9Mt @ 2.8g/t for 1,505koz**.
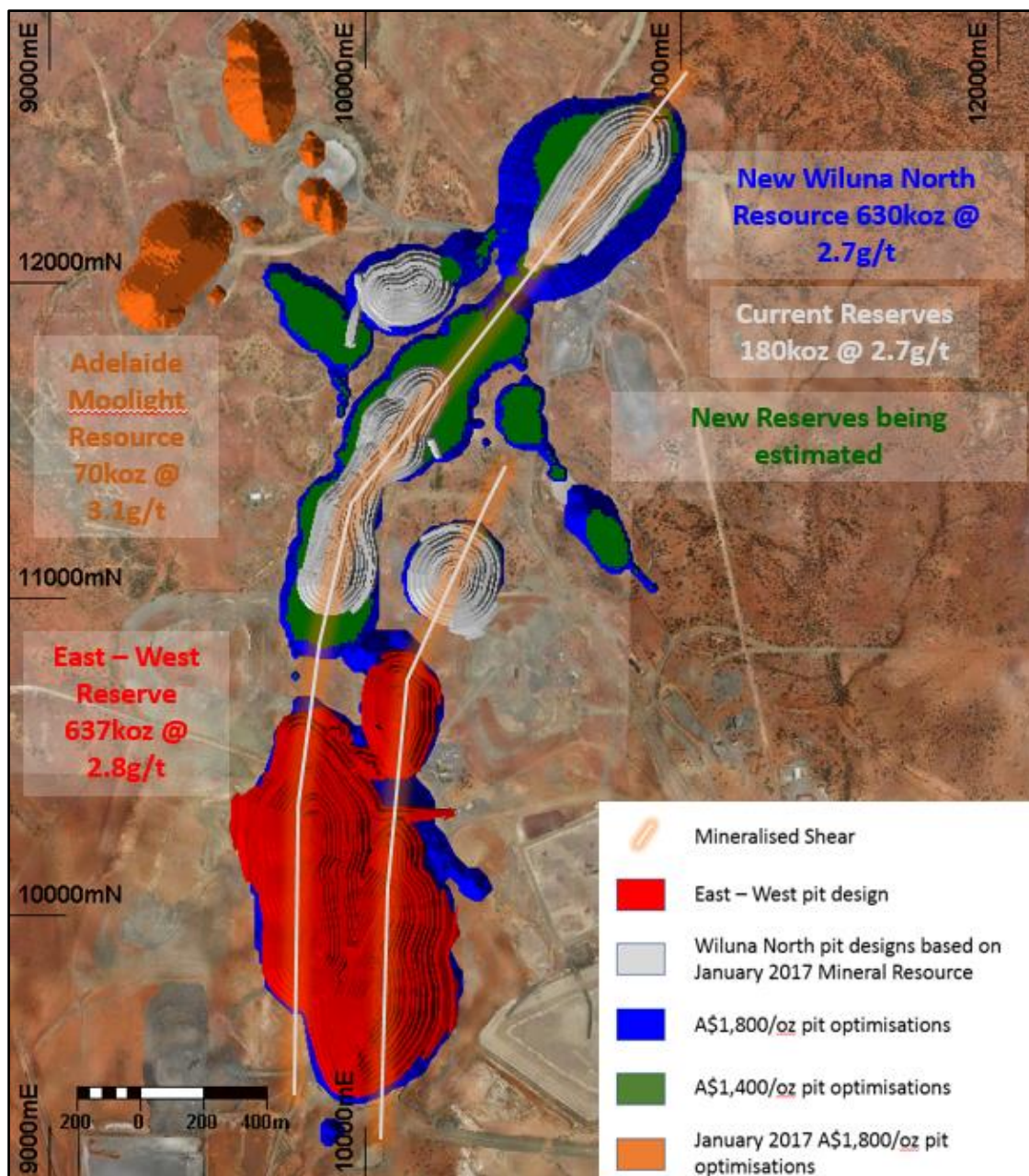

Figure 1 - Location of mineralised shear zones over 3.5km strike length with East-West design pit, Wiluna North PFS design pits and resource pit optimisation suggests likely significant increase in reserves
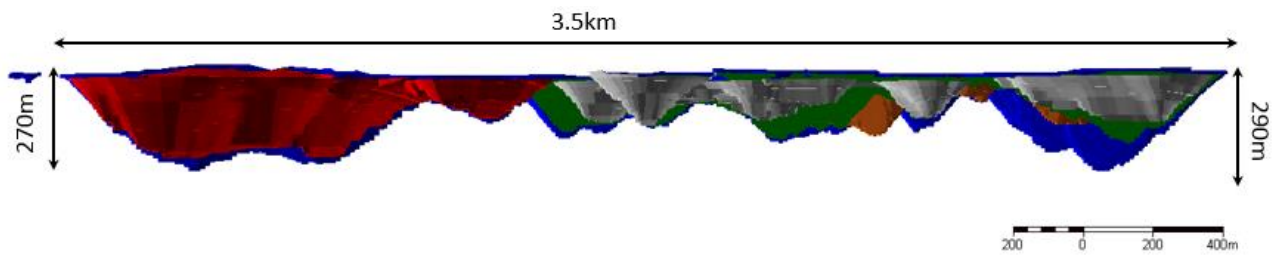
Figure 2 - Long section looking west showing the strike extent of the pits

Cube Consulting were once again engaged to produce the gold grade estimate for the Mineral Resource based on a mineralisation interpretation completed by Blackham geologists. The Mineral Resource was peer reviewed and classified with guidance from Cube. As drilling targeted mineralisation which is likely to fall within a pit, the underground Mineral Resource which contains all mineralisation beneath the A$1,800/oz optimised pit shell is essentially unchanged.

A review of a range of optimised pit shells shows that except for Bulletin, the pits are relatively insensitive to gold price. As shown in Figures 3 to 5, apart from Bulletin, the A$1,400 pit shells are only slightly smaller than the A$1,800/oz pit shells.

A breakdown of the Wiluna North Mineral Resource estimate is provided in Table 1 and compared with the previous Mineral Resource estimate from January 2017.
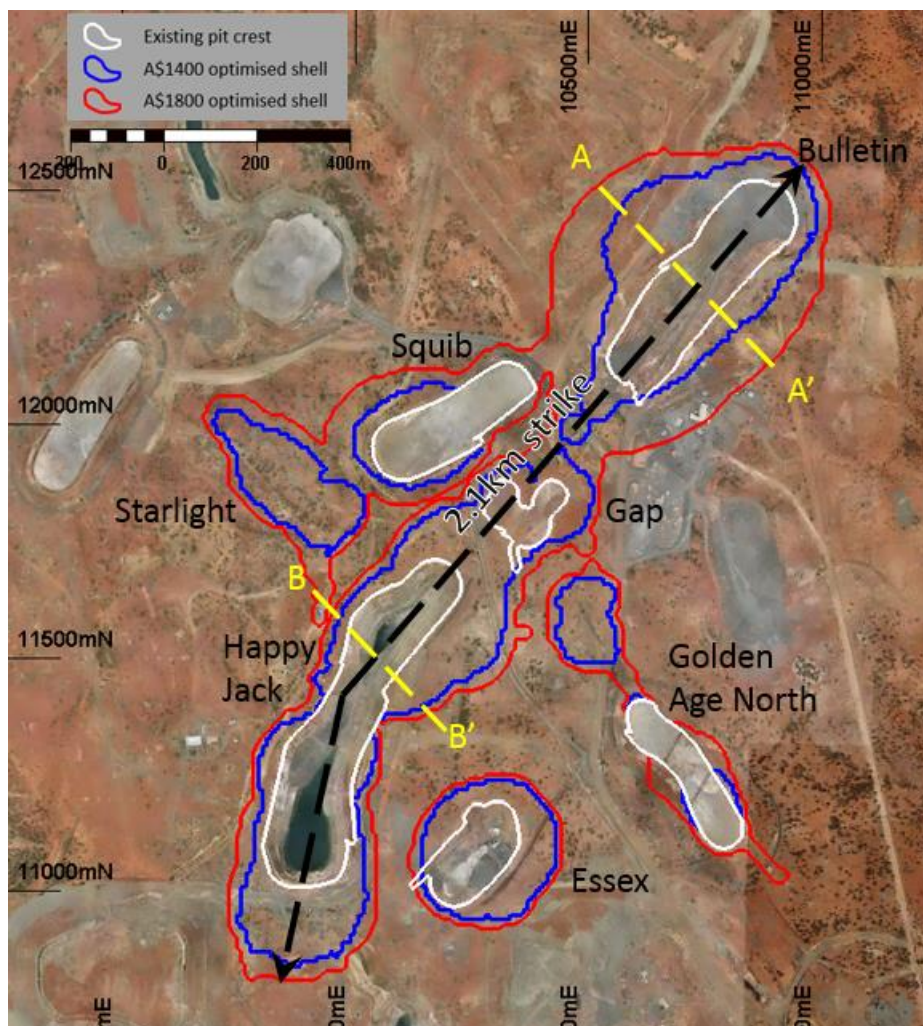

Figure 3 - Plan view of A$1800/oz and A$1400/oz pit shells and location of cross sections shown in Figures 6 and 7

Comparison to the previous Wiluna North Open Pit Mineral Resource

Table 1 - October 2017 Mineral Resources within A$1,800/oz optimised pit shell and January 2017 comparison

	Area	Indicated			Inferred			Total		
		Tonnes (Mt)	Grade (g/t)	Ounces (Moz)	Tonnes (Mt)	Grade (g/t)	Ounces (Moz)	Tonnes (Mt)	Grade (g/t)	Ounces (Moz)
Oct '17	Wiluna North OP	6.2	2.6	0.51	1.1	3.4	0.12	7.3	2.7	0.63
Jan'17	Wiluna North OP	3.2	2.8	0.29	0.5	1.9	0.03	3.7	2.7	0.32

1. Open pit lower cut off grades: 0.5g/t oxide, 1g/t for transitional and fresh
2. All figures are rounded to two decimal places. Apparent differences may occur due to rounding.
3. JORC Code (2012) Table 1 parameters are contained within Appendix 1 of this release.
4. Jan'17 OK resource is undiluted and Oct'17 LUC resource is on a diluted basis

Drilling at Bulletin during 2017 has confirmed the presence of additional high grade shoots in lodes sub-parallel to the main Bulletin lode. Results from these new shoots include 35m @ 4.95g/t Au, 7m @ 5.54g/t Au, 14m @ 1.97g/t Au, and 19m @ 2.70g/t Au (refer to ASX release dated 3rd July for details). These sub-parallel lodes have resulted in a large increase in the Bulletin open pit resource due to the presence of very high-grade mineralisation driving the pit deeper. Deep drilling into these lodes is limited and consequently the deeper portions of these lodes have been classified as Inferred.

As Figure 5 shows, this deep zone of high grade mineralisation means that Bulletin open pit mining is more sensitive to the gold price than the other pits. However, the average grade of the mineralisation should support underground mining, especially since underground infrastructure is largely in place. Trade off studies comparing the cross-over point between open pit versus underground mining for Bulletin will be undertaken as part of the DFS.

Additional drilling at Happy Jack has also confirmed the continuity of high grade shoots which result in a larger high grade pit which is largely insensitive to the gold price (Figures 4, 5 and 7).
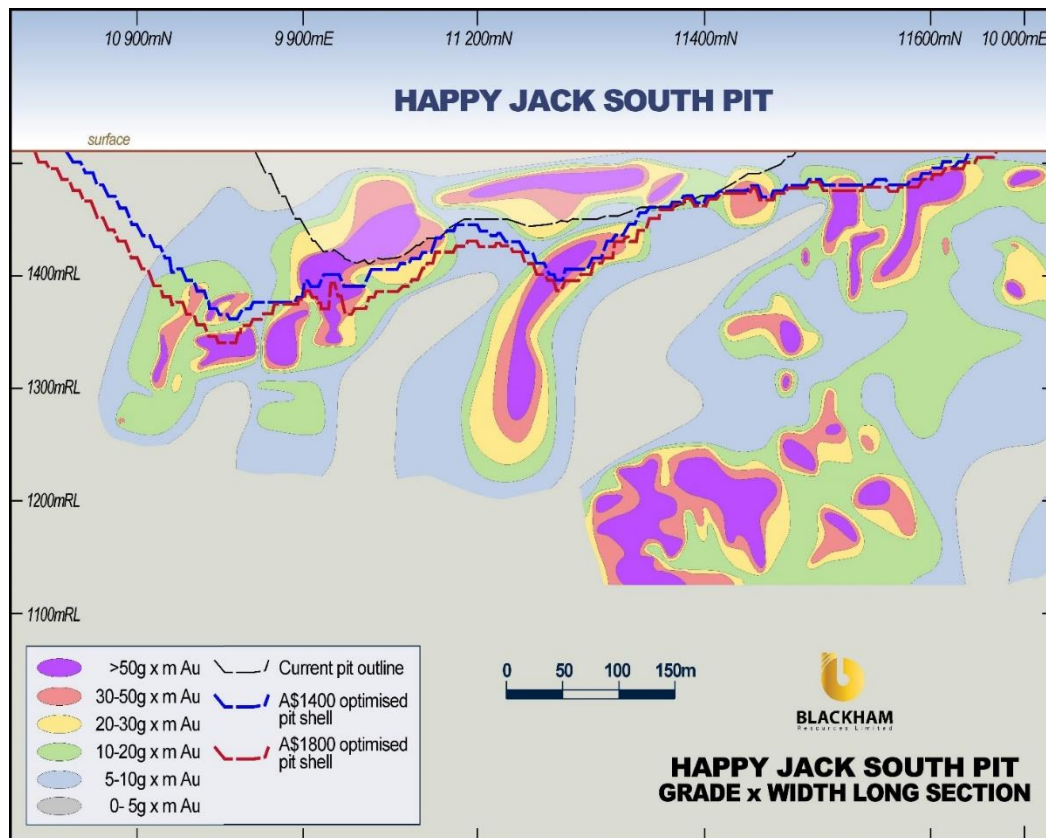
Figure 4 - Long section looking west through the Happy Jack South pit showing that the A$1,400/oz optimised pit shell is only slightly smaller than the A$1,800/oz pit shell which is likely to lead to a low cost pit.
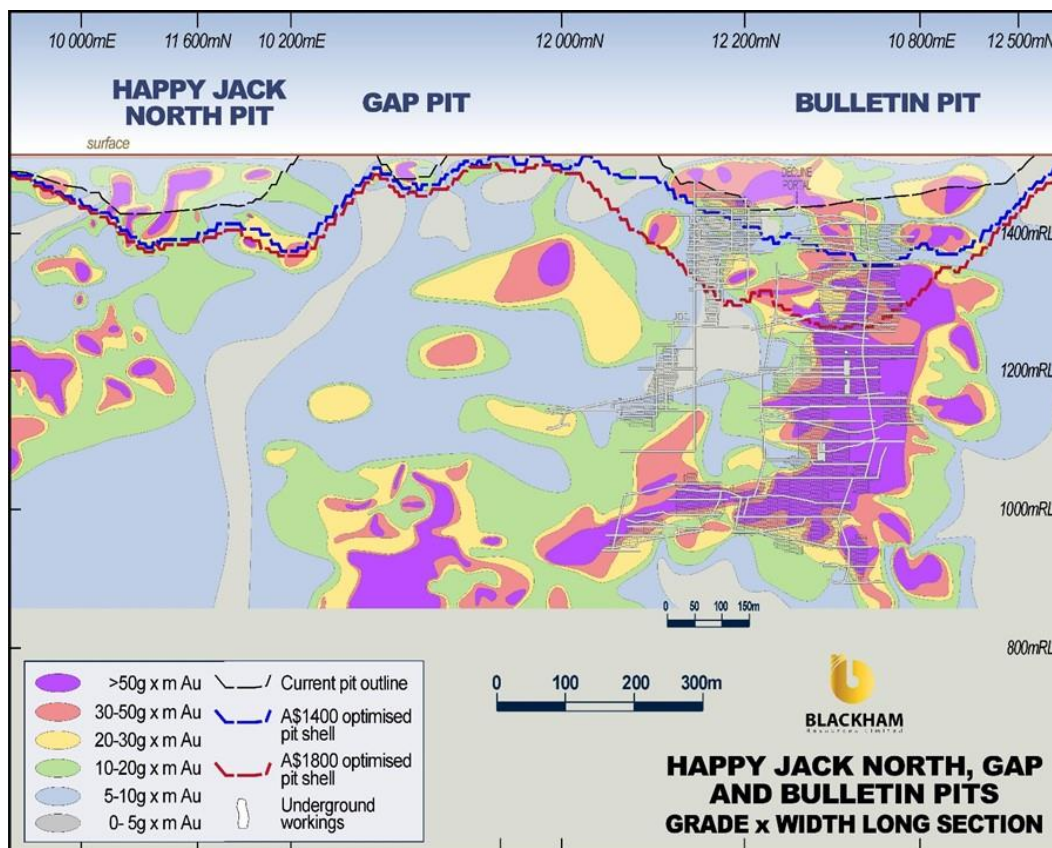

Figure 5 - Long section looking west through the Happy Jack North, Gap and Bulletin pits showing that apart from Bulletin, the A$1,400/oz optimised pit shell is only slightly smaller than the A$1,800/oz pit shell. Note underground development shown is on the Bulletin main lode only. The western footwall lodes have not been mined.
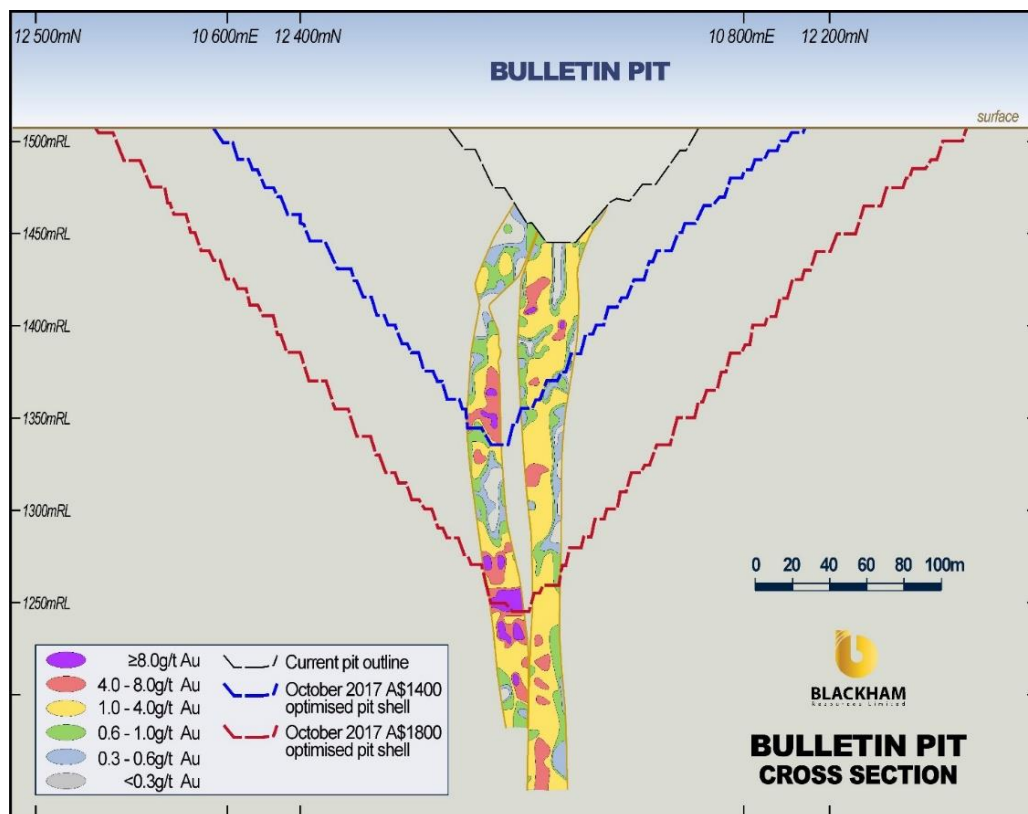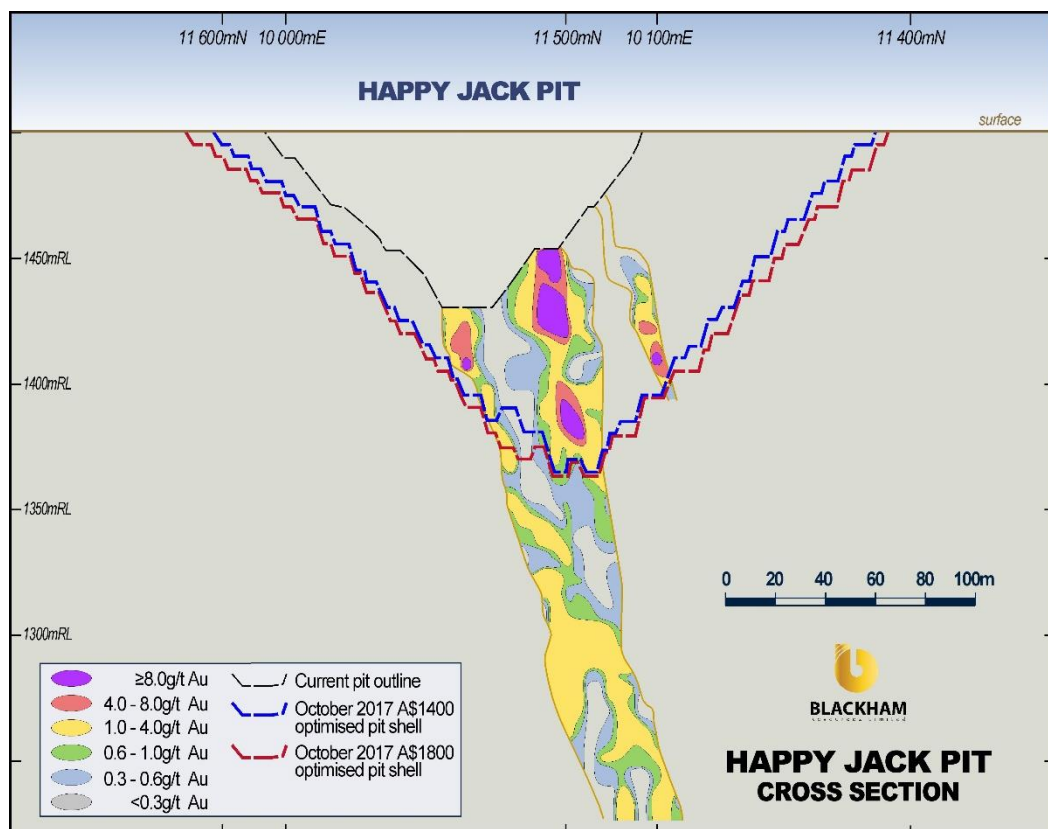
BULLETIN PIT

BULLETIN PIT CROSS SECTION

Legend:
- ≥8.0g/t Au
- 4.0 - 8.0g/t Au
- 1.0 - 4.0g/t Au
- 0.6 - 1.0g/t Au
- 0.3 - 0.6g/t Au
- <0.3g/t Au
- Current pit outline
- October 2017 A$1400 optimised pit shell
- October 2017 A$1800 optimised pit shell

Figure 6 - Cross section A-A' through the Bulletin pit looking north comparing the July A$1,800/oz and A$1,400/oz optimised pit shells demonstrates the broad Bulletin orebody is attractive for both an open pit and underground mining. Note only parts of the Main Bulletin lode (right) have been mined from underground

Of the 120,000oz Inferred material within the A$1,800/oz pit shells, 115,000oz are within the Bulletin pit where additional drilling is required to improve the confidence level of the western lodes; 66,000oz lies adjacent to previously mined stopes and 45,000oz are within the newly defined Bulletin footwall lodes. 58% of the Mineral Resource within the Bulletin A$1,800/oz pit shell is classified as Indicated. For the remaining pits >95% of the Mineral Resource is classified as Indicated.

Figure 7 - Cross section B-B' through the Happy Jack North pit looking north comparing the July A$1,800/oz and A$1,400/oz optimised pit shells demonstrates that the Happy Jack pit economics are robust even at lower gold prices

HAPPY JACK PIT

HAPPY JACK PIT CROSS SECTION

Legend:
- ≥8.0g/t Au
- 4.0 - 8.0g/t Au
- 1.0 - 4.0g/t Au
- 0.6 - 1.0g/t Au
- 0.3 - 0.6g/t Au
- <0.3g/t Au
- Current pit outline
- October 2017 A$1400 optimised pit shell
- October 2017 A$1800 optimised pit shell

The Happy Jack North, Happy Jack South and Bulletin pits all have existing portals and declines in them allowing a low cost transition into underground mining.

Some of the Bulletin and Happy Jack lodes have been mined historically from underground which may result in open voids within the planned pit. In this estimate, mineralisation immediately adjacent to historical stopes has been classified as Inferred due to uncertainty associated with the application of mining factors allowing economic extraction around the voids. This mineralisation had been classified as Indicated in the previous estimate. Blackham is progressing work to identify areas of backfill within stope voids as this will increase the confidence level of the resource and allow mineralisation around backfilled stopes to be included in the Ore Reserve estimation.

Previous Mineral Resources for the Wiluna North deposits have been estimated using Ordinary Kriging (OK). However, a review of the December resource model by Cube Consulting suggested that although OK is an industry standard estimation method it may not be the most suitable method for the Wiluna open pits due to the relatively high gold grade variability evident within the lodes. Under these circumstances, OK does not reflect the inherent variability of the orebody and tends to produce over-smoothed block grade estimates. Cube recommended that Localised Uniform Conditioning (LUC) would be a more appropriate estimation method to better predict the grade-tonnage distribution which could be expected during open pit mining. The LUC process, as implemented in this case, has resulted in a Mineral Resource estimate that accounts for the majority of the anticipated dilution.

Total resources for the Wiluna/Matilda Gold Project (including depletions to the end of June 2017) now stand at 65Mt @ 3.1g/t for 6.5Moz (Table 2).

Table 2 – Wiluna/Matilda Operations October 2017 Measured, Indicated and Inferred Resources (JORC 2012)

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	0.9	1.5	44	6.1	1.7	340	4.1	1.4	185	11.1	1.6	**569**
Galaxy	0.7	1.4	32	0.1	3.7	5	0.2	2.8	16	1.0	1.6	**53**
Williamson Mine				3.3	1.6	170	3.8	1.6	190	7.1	1.6	**360**
Wiluna OP[1]				13.6	2.6	1150	3.3	3.3	355	16.9	2.8	**1,505**
Regent				0.7	2.7	61	3.1	2.1	210	3.8	2.2	**271**
Stockpiles				0.4	0.9	11				0.4	0.9	11
OP Total	**1.6**	**1.5**	**76**	**24**	**2.2**	**1,737**	**15**	**2.1**	**956**	**40**	**2.1**	**2,769**
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
Golden Age	0.1	4.2	8	0.2	7.1	46	0.6	3.8	75	0.9	4.5	**129**
Wiluna				8.2	5.5	1441	14.6	4.4	2086	23	4.8	**3,527**
Matilda Mine UG				0.1	2.5	10	0.6	3.6	70	0.7	3.6	**80**
UG Total	**0.1**	**4.2**	**8**	**9**	**5.5**	**1,497**	**16**	**4.4**	**2,231**	**24**	**4.8**	**3,736**
Grand Total	**1.7**	**1.5**	**84**	**33**	**3.1**	**3,234**	**30**	**3.3**	**3,187**	**65**	**3.1**	**6,505**

1) Wiluna Open Pit Resources include the East, West, Happy Jack, Creek Shear, Golden Age North, Gap, Bulletin, Essex, Adelaide and Moonlight orebodies reported from inside an A$1,800/oz optimised resource shell.

2) Mineral Resources are reported inclusive of Ore Reserves and include all exploration and resource definition drilling information, where practicable, up to 30th June 2017.

3) The Measured component of the Matilda and Galaxy open pit Mineral Resources is based on grade control drilling and the grade is reported on a diluted basis

4) Underground Mineral resources for Matilda are reported below an RL of 950m and above a 2.0g/t lower cut

5) Indicated and Inferred Mineral Resources at Galaxy are below the design pit and reported above a 2.0g/t lower cut

6) Mineral Resource estimates are not precise calculations. The figures in the above table are rounded to two significant figures

7) Cut off grades used in the estimations vary between deposits and are given in Appendix 1 Table 1

8) Resource depleted to 30 June 2017

Over the last 120 years the Wiluna Operation has produced 4.3Moz of gold from predominately refractory ores. All of the pits are located within a 4km radius of the refractory processing facility which has operated for 19 of the last 24 years. This large open pit resource base will underpin the base load feed for the expansion of the Wiluna processing plant. The Expansion PFS released on the 30 August 2017 confirmed the robust economics and economies of scale supporting the Operations expansion.

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 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 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 Northern lodes is predominantly hosted within a series of theoletic and high magnesium basalts and generally strikes north-west. In Bulletin – Happy Jack lode there is one dominant shear with numerous hangwall splays which are north to north-northeast striking. These mineralised shear zones range in thickness from approximately 5m to 30m.

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 Wiluna open pit resource a lower cut-off grade of 0.3g/t was used.

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:
- o   Geological continuity and volume models;
- o   Drill spacing and available mining information;
- o   Modelling technique

  o 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 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.

For further information on Blackham please contact:

Bryan Dixon
Managing Director
Blackham Resources Limited
Office: +618 9322 6418

Bruce Kendall
Chief Geological Officer
Office: +618 9322 6418

Jim Malone
Investor Relations
Blackham Resources Limited
Mobile: +61 419 537 714

John Gardner
Media Enquiries
Citadel Magnus
Office: +618 6160 4901

Competent Persons Statement

The information contained in the report that relates to Exploration Targets and Exploration Results at the Matilda/Wiluna Gold Operation is based on information compiled or reviewed by Mr Bruce Kendall, who is a full-time employee and security holder 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 and security holder 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/Wiluna Gold Operation 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, 27 June 2016 and 23 January 2017 continue to apply and have not materially changed with exception of the Wiluna open pit resources as outlined in this announcement.

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.

Appendix 1

JORC Code, 2012 Edition – Table 1 (Wiluna Gold Operation)

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*	• 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) NQ2 or HQ core with ½ core sampling. Samples from RC and diamond drilling are reported herein. • 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 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. • 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. • 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.

	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.	
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. Diamond drilling is oriented NQ or HQ core • 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.* • *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 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 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*	• Drill samples have been logged for geology, alteration, mineralisation, weathering, geotechnical properties and other features to a level of detail considered appropriate for geological and resource modelling.

	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.	• Logging of geology and colour for example are interpretative and qualitative, whereas logging of mineral percentages is quantitative. • All holes were logged in full. • 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 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.	• For core samples, Blackham uses half core cut with an automatic core saw. Samples have a minimum sample width of 0.3m and maximum of 1.2m, though typically 1m intervals were selected. 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. • For historical drilling sampling techniques and preparation are not known. 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. Holes have been selectively sampled (visibly barren zones not sampled, though some quartz vein intervals have been left un-sampled), with a minimum sample width of 0.3m and maximum of 1.2m, though typically 1m intervals were selected. • RC sampling with cone splitting with 1m samples collected. 4m scoop composites compiled from individual 1m samples. RC sampling with riffle or cone splitting and spear compositing is considered standard industry practice. • For historical samples the method of splitting the RC samples is not known. However, there is no evidence of bias in the results • 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; • 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. With a minimum of one duplicate sample per hole. 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.
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*	• Blackham's significant intercepts have been verified by several company personnel, including the database manager and exploration manager. • There were 4 twin holes drilled within 10m of the original historical hole. Analysis of these did not indicate any bias between drill types or between historical and recent holes. Holes within 5m of each other generally show a good correlation between intercept grades. Holes with intercept pierce points up to 40m apart were also compared. Again there was no bias, however, correlation between intercepts was generally poor when intercepts were greater than 20m apart reflecting the short range variability expected in a gold orebody like Wiluna

		procedures, data verification, data storage (physical and electronic) protocols. • _Discuss any adjustment to assay data._	• Wiluna data represents a portion of a large drilling database compiled since the 1930's by various project owners. • 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 2017v2". Historical procedures are not documented. • The only adjustment of assay data is the 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. • The mineralisation lodes show sufficient continuity of both geology and grade between holes to support the estimation of resources which comply with the 2012 JORC guidelines • 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 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 perpendicular to targets to intersect predominantly steeply-dipping north-south or northeast-southwest striking mineralisation. • The perpendicular orientation of the drillholes to the structures minimises the potential for sample bias.

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.*	• No external audit has been completed for this resource estimate. 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 are in good standing and no impediments exist. • Franco Nevada have royalty rights over the Wiluna Mine mining leases of 3.6% of net gold revenue.
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:* o *easting and northing of the drill hole collar*	• There is no new drilling information included in this release

	o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *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.*	
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.*	• In the significant intercepts are reported as length-weighted averages, above a 1m @ 0.6g/t cut-off, or > 1.2 gram x metre cut off (to include narrow higher-grade zones) using a maximum 2m contiguous internal dilution. For the body of the report and in Figures, wider zones of internal dilution are included for clearer presentation. AC intercepts are based on 4m composites. • High-grade internal zones are reported at a 5g/t envelope, e.g. MADD0018 contains 14.45m @ 6.74g/t from 162.55m including 4.4m @ 15.6g/t from 162.55m. • No metal equivalent grades are reported because only Au is of economic interest.
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 to this effect (eg 'down hole length, true width not known').*	• 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. Drill holes reported herein have been drilled as closed to perpendicular to mineralisation as possible. In some cases due to the difficulty in positioning the rig close to remnant mineralisation around open pits this is not possible.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for*	• See body of this report.

	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.	
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*	• 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 Wiluna open pit resources a lower cut-off grade of 0.3g/t was used for geological modelling. 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.

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	estimation.	• Drill logging has been used to constrain the 3D wireframes.
	• *The use of geology in guiding and controlling Mineral Resource estimation.*	• 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.
	• *The factors affecting continuity both of grade and geology.*	
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 Wiluna mine comprises a number of separate ore bodies. Individual ore bodies range in strike length up to 1500m and extends to ~1000m below surface and remains open. Widths vary for individual lodes between 1m and 40m.
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 assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic*	• The sample domains were flagged into an Access database from a validated wireframe. Samples that fell within previously mined (stoped) wireframes were excluded to minimise any bias. • A composites string-file was then created in Surpac with a 2.0 m composite length and a minimum percentage of sample to include at 50%. • Only Reverse Circulation (RC) and Diamond Drilling were used in the estimate. • Resource estimation for the east and west lode Wiluna mineralisation was completed using Localised Uniform Conditioning (LUC) for Gold (Au) and Inverse Distance and Regression Analysis for Sulphur (S) and Arsenic (As). Blockmodel field coding was used to constrain the estimate. All other Wiluna estimates were completed using Ordinary Kriging. • Soft boundaries were utilised between the oxidation surfaces. Only samples contained within each individual ore wireframe were used for the estimate of that lode. • Check estimates were completed using Ordinary Kriging (OK) and Inverse Distance methods. • The modelled wireframes were used to create a blockmodel with a user block 5mE by 3mN by 2.5mRL which relates to an SMU. No sub-blocking was applied. • The shape of the search ellipsoid was determined with due consideration given to the anisotropy in the variogram models. In addition, some visual inspections, using tools available in Isatis, were undertaken to assess the pattern of informing sample selection. The search ellipsoid radii ratios were then chosen to provide an optimal sample neighbour selection for estimation. • The minimum and maximum allowable number of samples were chosen using Quantitative Kriging Neighbourhood Analysis ("QKNA"). QKNA makes use of kriging quality statistics, in this case the Slope of Regression, Weight of the Mean and Negative Weights statistics, to select optimal minimum and maximum values for estimation.

	significance (eg sulphur for acid mine drainage characterisation).	• The search neighbourhood radii were chosen to be as small as possible while still fulfilling the requirement of filling all blocks in the estimation domains with estimates.

	• *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*	• 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.

	• *Any assumptions behind modelling of selective mining units.*	• 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.

	• *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.*	
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages are estimated on a dry basis.
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 open pit resource was reported at 0.5g/t cutoff in oxide and at 1.0g/t cutoff in transitional and fresh in A$1,800/oz Shell while the underground was reported at 2.00g/t in fresh rock outside the shell. • For the remaining resources a cut-off of 0.5g/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 basis of the mining assumptions made.*	• No specific mining factors or assumptions have been applied.
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*	• 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.

	assumptions made.	
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. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• No environmental, permitting, legal, taxation, socio-economic, marketing or other relevant issues are known, that may affect the estimate.
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*	• Bulk densities were assigned as 2.00 t/m3 for oxide, 2.50 t/m3 for transitional and 2.80 t/m3 • 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.

	• *alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	

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.
		   • The classification of the blocks was also visually checked and adjusted to remove any "spotted dog" effects. No measured resources were calculated.
		   • A "skin" surrounding existing stope voids (equal to the volume of the voids) has been classified as inferred to highlight the associated mining risk.
		• 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*	• This resource estimate is intended for both underground and open pit mining assessment and reports global estimates.

	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, 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 (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*	• 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) NQ2 or HQ core with ½ core sampling. Samples from RC and diamond drilling are reported herein. • 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 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. • 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. • 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 and SGS 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

	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).*	• Blackham data reported herein is RC 5.5" diameter holes. Diamond drilling is oriented NQ or HQ core. Core is orientated where possible using a Reflex ACT III tool or similar • 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.* • *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 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 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*	• Drill samples have been logged for geology, alteration, mineralisation, weathering, and other features to a level of detail considered appropriate for geological and resource modelling.

	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.*	• Logging of geology and colour for example are interpretative and qualitative, whereas logging of mineral percentages is quantitative. • All holes were logged in full. • 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 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*	• For core samples, Blackham uses half core cut with an automatic core saw. Samples have a minimum sample width of 0.3m and maximum of 1.2m, though typically 1m intervals were selected. A 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. • For historical drilling sampling techniques and preparation are not known. 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. Holes have been selectively sampled (visibly barren zones not sampled, though some quartz vein intervals have been left un-sampled), with a minimum sample width of 0.3m and maximum of 1.2m, though typically 1m intervals were selected. • RC sampling with cone splitting with 1m samples collected. 4m scoop composites compiled from individual 1m samples. RC sampling with riffle or cone splitting and spear compositing is considered standard industry practice. • For historical samples the method of splitting the RC samples is not known. However, there is no evidence of bias in the results • 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; • 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. With a minimum of one duplicate sample per hole. 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

	grain size of the material being sampled.	field. 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. • 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 (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, SGS completed the analyses using industry best-practice protocols. SGS 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 1:40. 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.*	• Blackham's significant intercepts have been verified by several company personnel, including the database manager and exploration manager. • There were no twinned holes drilled in this program. Drilling has been designed at different orientations, to help correctly model the mineralisation orientation. • Wiluna data represents a portion of a large drilling database compiled since the 1930's by various project owners.

	• *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.*	• 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 2016v2". Historical procedures are not documented. • The only adjustment of assay data is the 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.*	• Downhole surveys are taken every ~5 or 10m using a gyro tool for RC drilling. • 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. 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 estimation of resources which comply with the 2012 JORC guidelines • 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	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering*	• Drill holes were generally orientated perpendicular to targets to intersect predominantly steeply-dipping north-south or northeast-southwest striking mineralisation. However, around the historical pits optimal drill sites were not always available, so alternative orientations were used

geological structure	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.*	• The perpendicular orientation of the drillholes to the structures minimises the potential for sample bias
Sample security	• *The measures taken to ensure sample security.*	• 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.*	• No such audits or reviews have been undertaken as they are not considered routinely required; review will be conducted by external resource consultants when resource estimates are updated.

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*	• No significant intercepts reported

	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.*	
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 to this effect (eg 'down hole length, true width not known').*	• 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 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	• 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.

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 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.*
	• 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.
	• 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:
	    o The disintegration point of the data on the probability plots;
	    o Having a coefficient of variance (CV) under 2.0; and
	    o Reviewing the model (block) grades against the composites.
	• The estimate was validated using a number of techniques including but not limited to:
	    o A visual comparison of block grade estimates and the drill hole data;

	• *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.*	○ 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. 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*	• 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.

	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.*	• 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*
		• A range of criteria were considered when addressing the suitability of the classification boundaries to the resource estimate.
		      o Geological continuity and volume models;
		      o Drill spacing and available mining information;
		      o Modelling technique
		      o 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 or where Blackham

	of the data). • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	has completed grade control models. 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.*	