



# ASX RELEASE

10<sup>th</sup> September 2015

For Immediate Release

## RESOURCES AND RESERVES STATEMENT

The Directors of Ramelius Resources Limited (ASX: **RMS**) are pleased to announce new estimates of Mineral Resources and Ore Reserves as at 30 June 2015.

Total **Mineral Resources** are estimated to be;

- **28.15Mt at 2.5g/t Au for 2,227,000 ounces of gold**
- Represents a **4% increase** in grade and similar ounces to 30 June 2014

Total **Ore Reserves** are estimated to be;

- **4.85Mt at 2.7g/t Au for 424,000 ounces of gold**
- Represents a **12% increase** in grade and similar ounces to 30 June 2014

Overall changes to Resources and Reserves since 2014, are relatively minor, as increases in Resources and the addition of Reserves from Kathleen Valley have virtually matched mining depletions & adjustments.

The Mt Magnet and Kathleen Valley Ore Reserves have been estimated at a gold price of A\$1,400 per ounce, whilst Vivien Ore Reserves are based on a A\$1,450 per ounce price which was the price used for the Bankable Feasibility Study.

Managing Director, Mr Mark Zeptner today said:

*"I am encouraged to see that our latest Resource and Reserve position has effectively replaced gold production over the past 12 months, without needing to use the recent higher A\$ gold price to justify an increase. In saying that, we will be strongly focused on converting more of our +2Moz resource base into Reserves and then Mine Plan over the next 12 months, through brownfields exploration and resource development. We have a very good opportunity to grow the current three year mine plan utilising the cornerstone asset that is the 1.7Mtpa Checker gold mill at Mt Magnet."*

Detailed tables of Resources and Reserves are attached below.

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10 September 2015

### ISSUED CAPITAL

Ordinary Shares: 473M

### DIRECTORS

**CHAIRMAN:**  
Robert Kennedy  
**NON-EXECUTIVE DIRECTORS:**  
Kevin Lines  
Michael Bohm  
**MANAGING DIRECTOR:**  
Mark Zeptner

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### RAMELIUS RESOURCES LIMITED

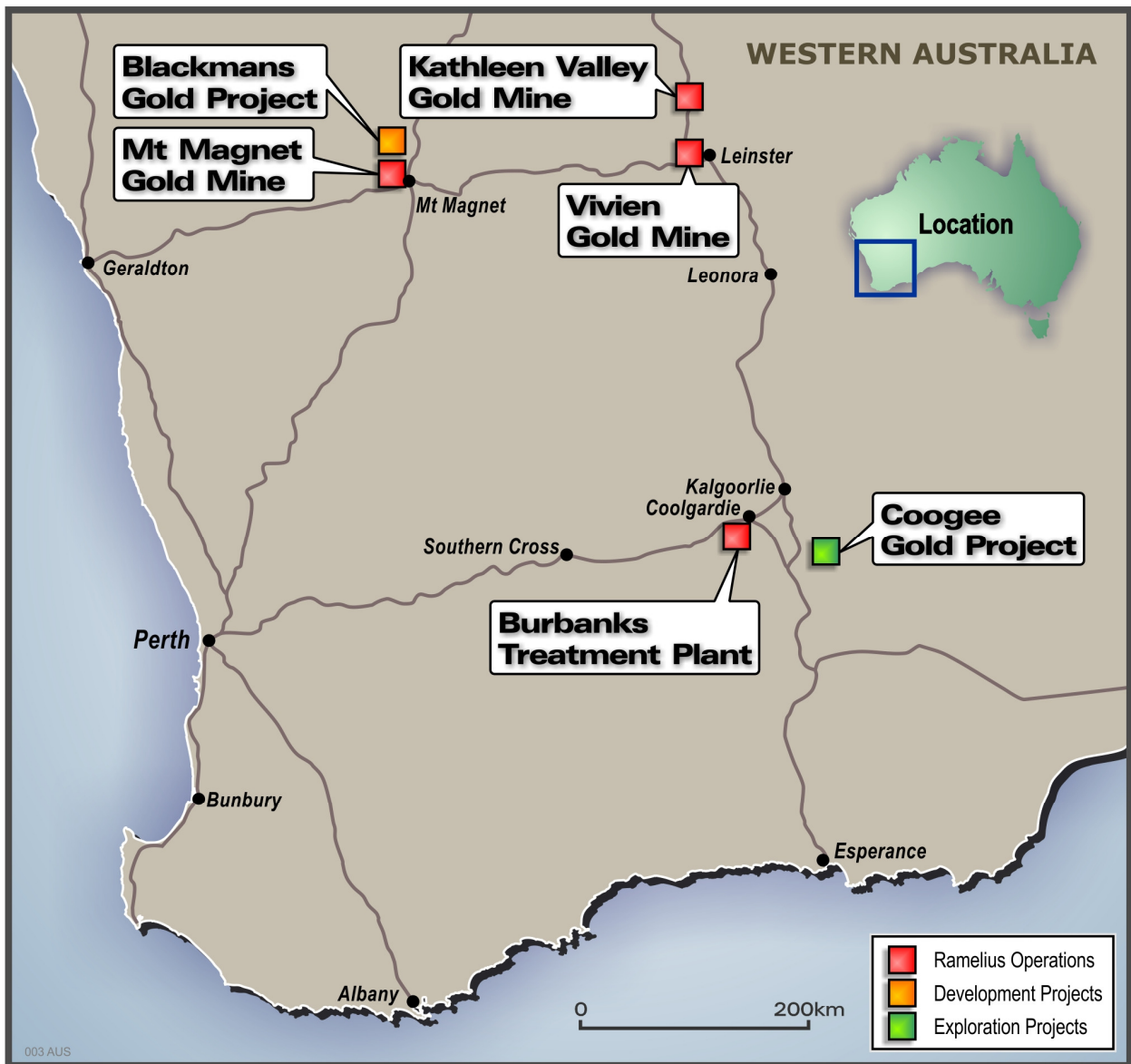
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## ABOUT RAMELIUS



**Figure 1:** Ramelius' Operations & Development Project Locations

Ramelius owns the Mt Magnet Gold mining and processing operation and has commenced the high grade Vivien and Kathleen Valley gold mines near Leinster, also in Western Australia. The Burbanks Treatment Plant is located approximately 9 kilometres south of Coolgardie and is currently on care and maintenance.

## MINERAL RESOURCES

**Table A: Mineral Resources**

MINERAL RESOURCES AS AT 30 JUNE 2015 - INCLUSIVE OF RESERVES												
Deposit	Measured			Indicated			Inferred			Total Resource		
	Tonnes ('000s)	Au g/t	Au Oz	Tonnes ('000s)	Au g/t	Au Oz	Tonnes ('000s)	Au g/t	Au Oz	Tonnes ('000s)	Au g/t	Au Oz
Galaxy	823	1.5	40,000	6,318	1.9	393,000	4,436	1.3	180,000	11,577	1.6	613,000
Morning Star				1,765	1.8	103,000	4	1.4	-	1,770	1.8	103,000
Total major deposits	823	1.5	40,000	8,084	1.9	496,000	4,441	1.3	180,000	13,347	1.7	716,000
Bartus Group	49	2.2	4,000	115	2.1	8,000	238	1.6	12,000	402	1.8	24,000
Blackmans				336	2.6	28,000	121	2.6	10,000	457	2.6	38,000
Boomer				1,194	1.8	68,000	786	1.0	26,000	1,980	1.5	94,000
Britannia Well				179	2.0	12,000				179	2.0	12,000
Bullocks				202	3.3	21,000	40	2.5	3,000	242	3.2	25,000
Eastern Jaspilite	146	2.2	10,000	121	2.8	11,000	134	2.5	11,000	401	2.4	32,000
Eclipse				167	2.2	12,000	41	2.1	3,000	208	2.1	14,000
Golden Stream				154	2.9	14,000	7	1.7	-	160	2.8	15,000
Hill 60							309	4.6	46,000	309	4.6	46,000
Lone Pine	199	2.5	16,000	277	1.7	15,000	147	1.7	8,000	623	1.9	38,000
O'Meara Group				231	2.5	18,000	151	1.5	7,000	383	2.1	26,000
Shannon	94	2.5	8,000	35	2.5	3,000	42	2.6	3,000	170	2.5	14,000
Spearmont - Galtee				25	2.9	2,000	207	4.3	28,000	232	4.1	31,000
Stellar	160	2.1	11,000	87	1.9	5,000	59	1.8	3,000	306	2.0	19,000
Welcome - Baxter	222	1.6	11,000	276	1.6	15,000	198	1.8	11,000	696	1.7	37,000
Total satellite deposits	869	2.1	60,000	3,399	2.1	232,000	2,480	2.1	171,000	6,748	2.1	463,000
Hill 50 Deeps	279	5.5	49,000	932	7.0	209,000	396	6.4	81,000	1,607	6.6	339,000
Morning Star Deeps				195	4.2	26,000	334	5.0	53,000	528	4.7	79,000
Saturn UG							1,607	2.5	127,000	1,607	2.5	127,000
St George UG	110	4.9	17,000	149	4.2	20,000	42	4.0	5,000	302	4.4	42,000
Water Tank Hill UG				229	6.6	49,000	89	4.9	14,000	318	6.1	63,000
Total UG deposits	390	5.3	66,000	1,504	6.3	304,000	2,468	3.5	280,000	4,362	4.6	650,000
Mt Magnet Stockpiles	794	0.7	19,000		-	-		-	-	794	0.7	19,000
Mt Magnet Total	2,876	2.0	185,000	12,987	2.5	1,032,000	9,388	2.1	631,000	25,251	2.3	1,848,000
Western Queen South				104	3.6	12,000	81	3.4	9,000	185	3.5	21,000
Coogee				31	3.6	4,000	65	3.3	7,000	96	3.4	11,000
Vivien				499	8.8	141,000	306	4.4	43,000	805	7.1	184,000
Kathleen Valley												
Mossbecker				463	4.0	59,000	186	2.3	14,000	650	3.5	73,000
Yellow Aster/Nils D.				205	4.4	29,000	960	2.0	61,000	1,165	2.4	90,000
Non Mt Magnet Total				1,302	5.9	245,000	1,599	2.6	134,000	2,901	4.1	379,000
Total Resources	2,876	2.0	185,000	14,289	2.8	1,277,000	10,987	2.2	765,000	28,152	2.5	2,227,000

Note: Figures rounded to nearest 10,000 tonnes, 0.1g/t and 1,000 ounces. Rounding errors may occur.

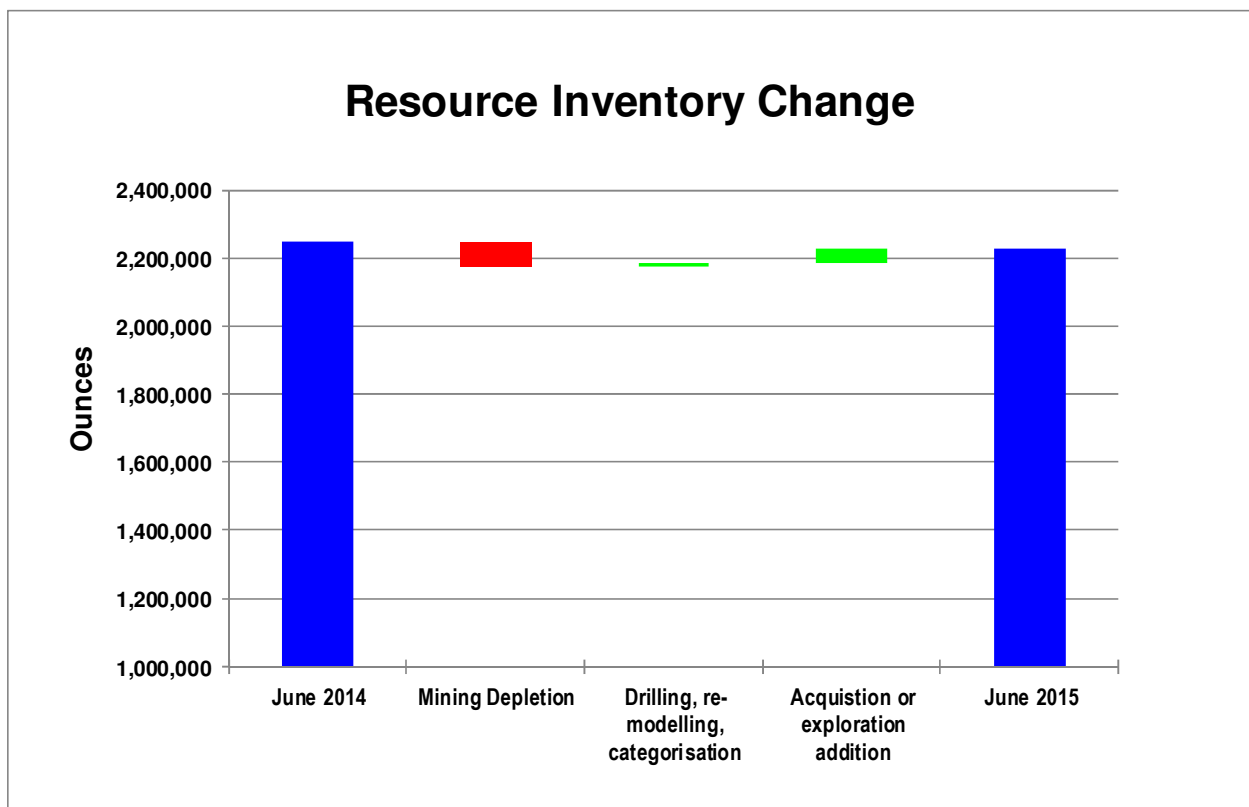
### Mineral Resource Commentary

Galaxy comprises of a number of deposits surrounding the historic Hill 50 underground mine, including Saturn, Mars, Titan, Perseverance and Brown Hill. Galaxy Resources for the Saturn and Mars open pits were depleted by 72,000 ounces for mining to 30 June 2015. Mt Magnet deposits (with the exception of Blackmans) are contained within the Mt Magnet contiguous tenement holding and located within an 8 km radius of the Checkers gold mill. The Blackmans deposit is a new resource (38,000oz), located 30km north of Mt Magnet. All resources except Hill 50 Deeps, Morning Star Deeps, Saturn UG, St George UG and

Water Tank Hill UG are generated as open pit resources and reported to maximum vertical depth of 200m below pre-existing topography. Net change to resources is shown below in Figure 2. The Kathleen Valley deposits were drilled and re-modelled in 2014/15 and increased by 33,000 ounces.

All resources are based on combinations of RC (usually predominant) and diamond drillholes. Sampling has been via riffle or cone splitters (RC) or by sawn half core. Assay is carried out by commercial laboratories and accompanied by QAQC samples. Mineralisation has been modelled as cross-sectional interpretations using deposit suitable lower cut-offs & geological interpretation or characteristics. Interpretations have then been wireframed using geological software, including Micromine & Surpac. Mineralisation has been grouped by domain where required and statistical analysis, top-cutting and estimation carried out using anisotropic search ellipses. Estimation uses Ordinary Kriging and/or Inverse Distance methods. Modelling has been undertaken with recognition of the probable mining method and resource classifications reflect drill spacing, data quality, geological and grade continuity.

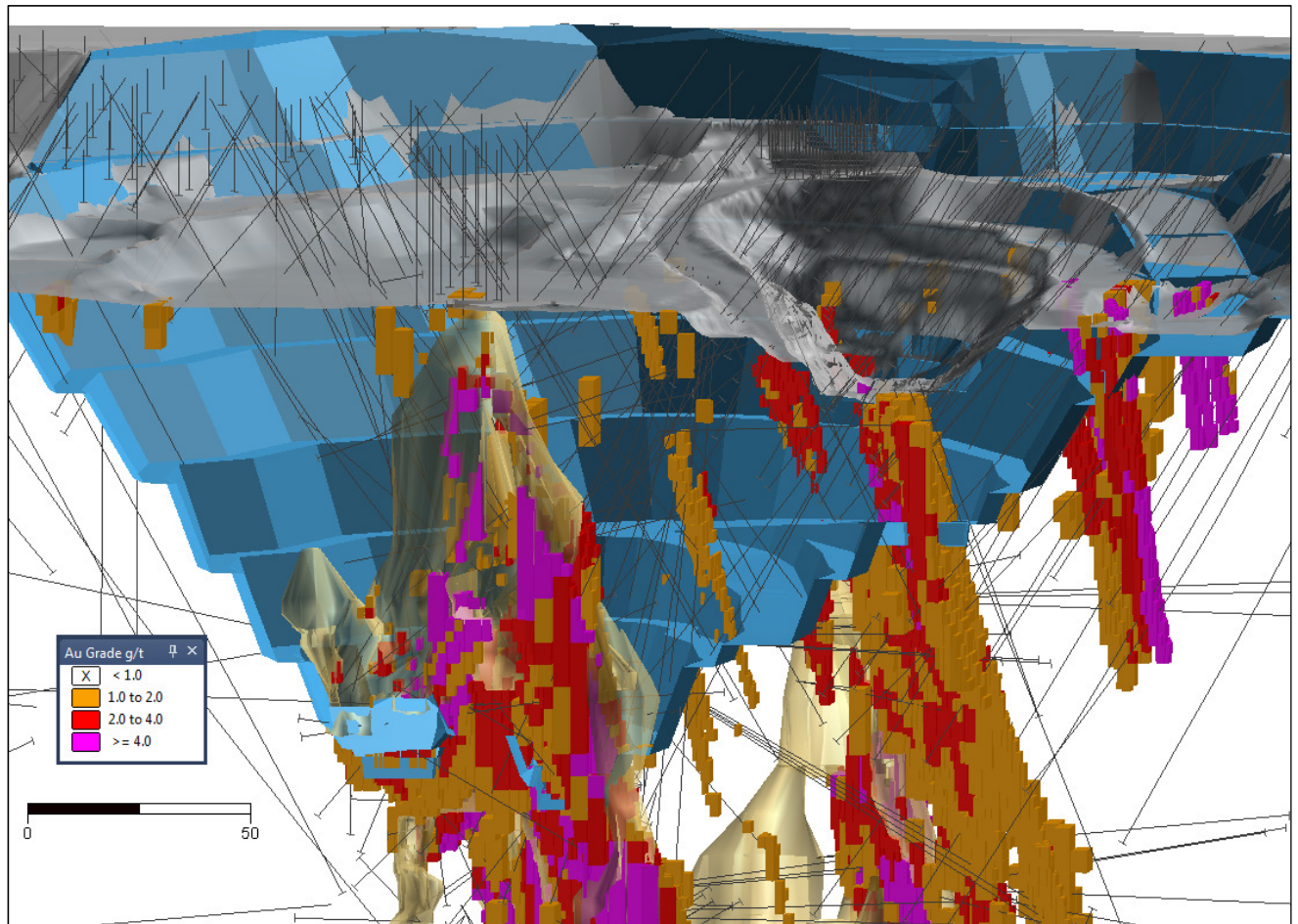
Further details are available from RMS ASX Releases for individual projects. Further detailed information relating to generation of the resource estimates is attached below in Table 1 – JORC 2012 Reporting Criteria.



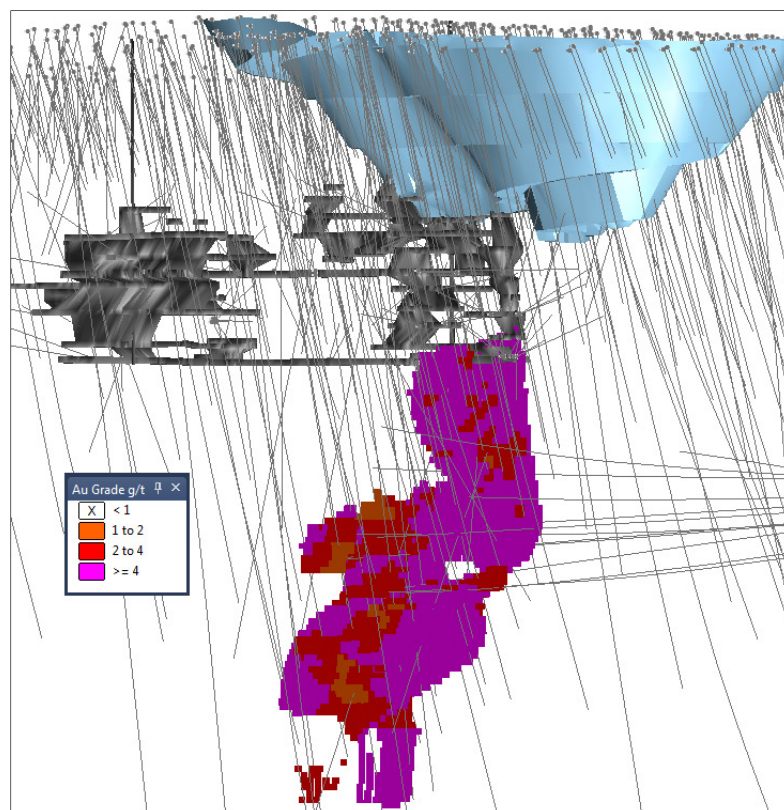
**Figure 2: Resource Inventory Change**



## Mineral Resource Diagrams



**Figure 3:** Perseverance (Galaxy), truncated view looking N, model, voids, drilling, pit design & June 2015 pit



**Figure 4:** Water Tank Hill UG, 3D view to NE, model, drilling & voids



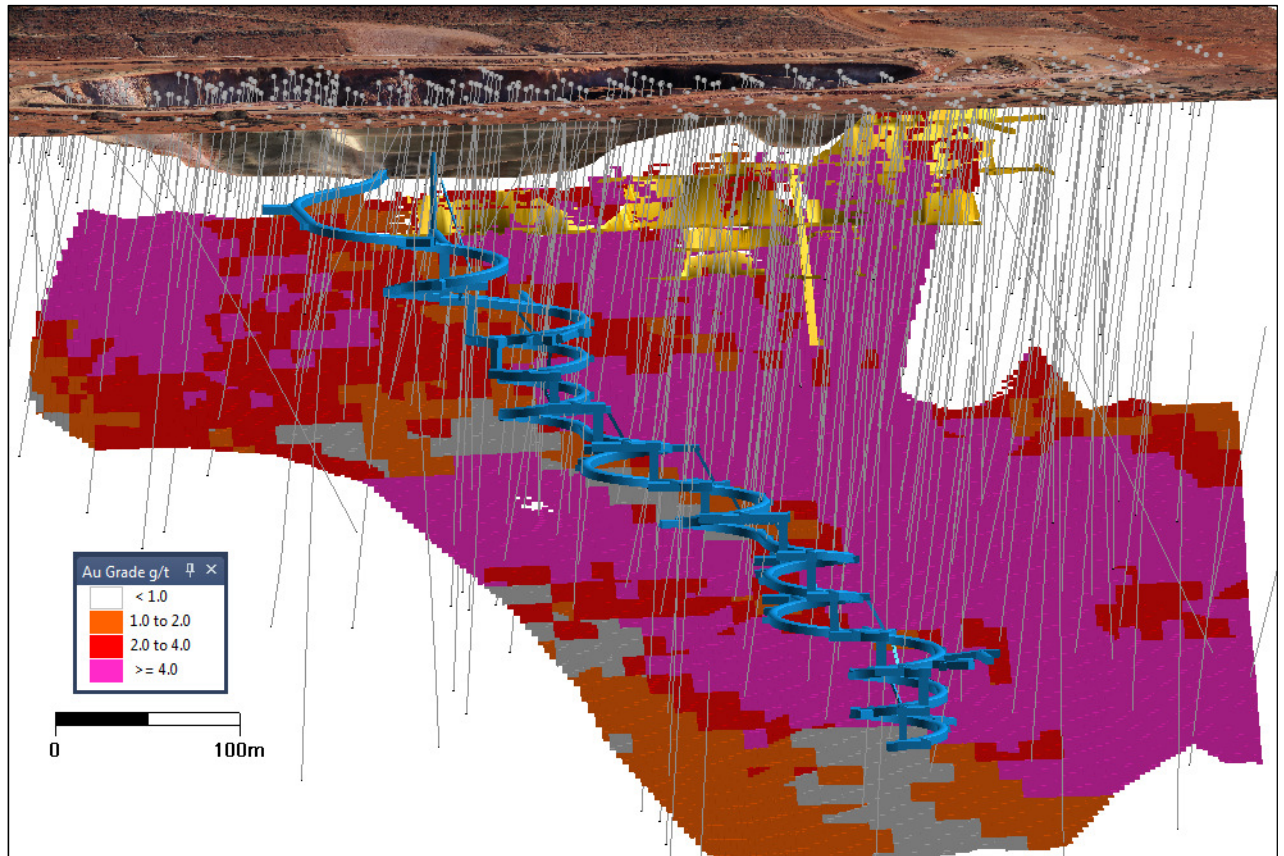


Figure 5: Vivien UG, 3D view to NW, model, drilling & decline

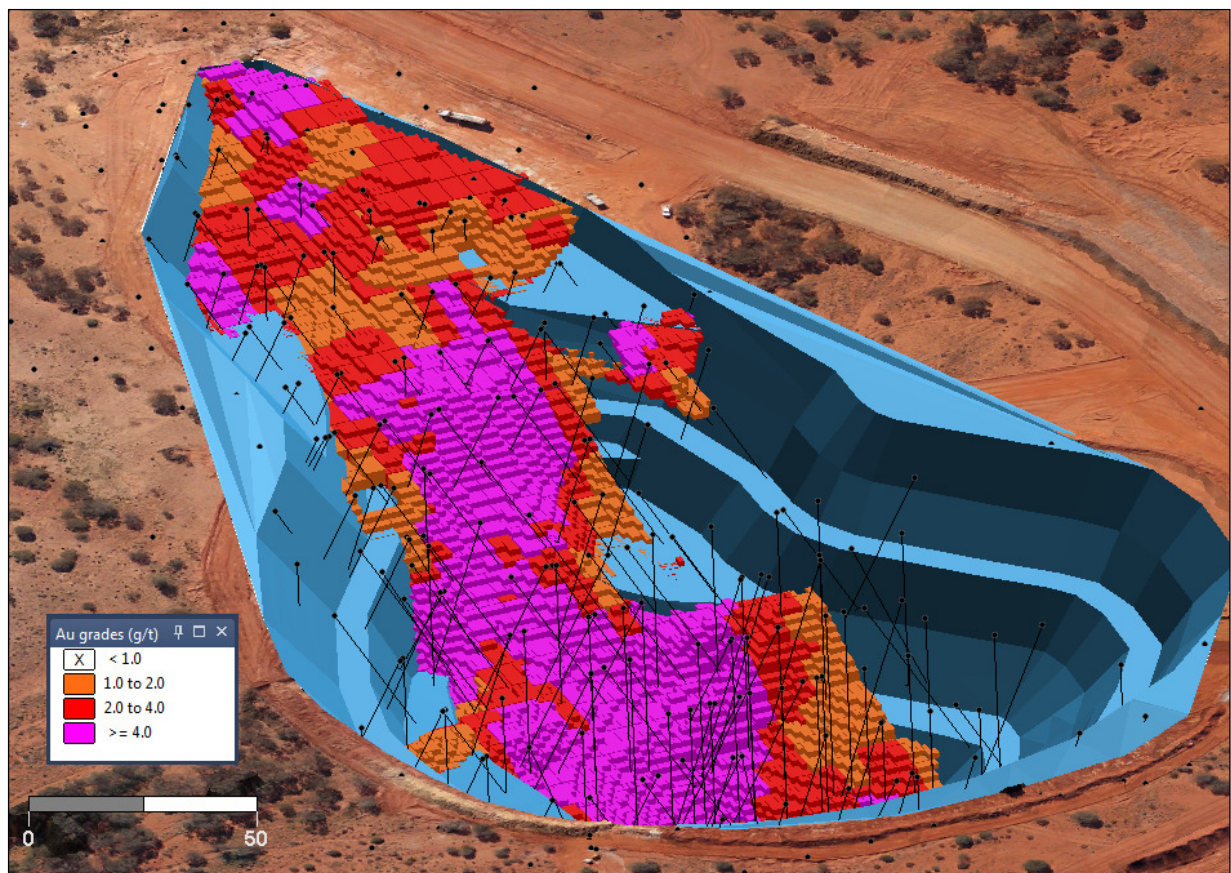


Figure 6: Mossbecker, 3D view to N, model, drilling & pit design

## ORE RESERVES

Table B: Ore Reserves

ORE RESERVE STATEMENT AS AT 30 JUNE 2015									
	Proven			Probable			Total Reserve		
	Tonnes ('000s)	Au g/t	Au Oz	Tonnes ('000s)	Au g/t	Au Oz	Tonnes ('000s)	Au g/t	Au Oz
<b>Galaxy Pits</b>									
Saturn	21	1.5	1,000	92	2.2	7,000	113	2.1	8,000
Mars	20	1.9	1,000	65	1.7	4,000	84	1.8	5,000
Titan	667	1.4	30,000	483	1.4	21,000	1,150	1.4	51,000
Perseverance				452	2.7	39,000	452	2.7	39,000
Brown Hill				109	2.6	9,000	109	2.6	9,000
<b>Morning Star Cutback</b>									
Morning Star				478	2.8	43,000	478	2.8	43,000
<b>Satellite Pits</b>									
Boomer				132	2.9	12,000	132	2.9	12,000
Lone Pine				258	1.8	15,000	258	1.8	15,000
O'Meara				46	3.4	5,000	46	3.4	5,000
Golden Stream				95	3.0	9,000	95	3.0	9,000
<b>Underground</b>									
Water Tank Hill				176	6.5	37,000	176	6.5	37,000
St George	73	3.6	8,000	86	3.0	8,000	159	3.3	16,000
<b>Stockpiles</b>	794	0.7	19,000				794	0.7	19,000
<b>Mt Magnet Total</b>	<b>1,575</b>	<b>1.2</b>	<b>59,000</b>	<b>2,471</b>	<b>2.6</b>	<b>209,000</b>	<b>4,045</b>	<b>2.1</b>	<b>268,000</b>
<b>Vivien Underground</b>				<b>400</b>	<b>7.9</b>	<b>101,000</b>	<b>400</b>	<b>7.9</b>	<b>101,000</b>
Mossbecker pit				321	4.1	42,000	321	4.1	42,000
Yellow Aster pit				88	4.6	13,000	88	4.6	13,000
<b>Kathleen Valley Total</b>				<b>408</b>	<b>4.2</b>	<b>55,000</b>	<b>408</b>	<b>4.2</b>	<b>55,000</b>
<b>Total Reserves</b>	<b>1,575</b>	<b>1.2</b>	<b>59,000</b>	<b>3,279</b>	<b>3.5</b>	<b>365,000</b>	<b>4,854</b>	<b>2.7</b>	<b>424,000</b>

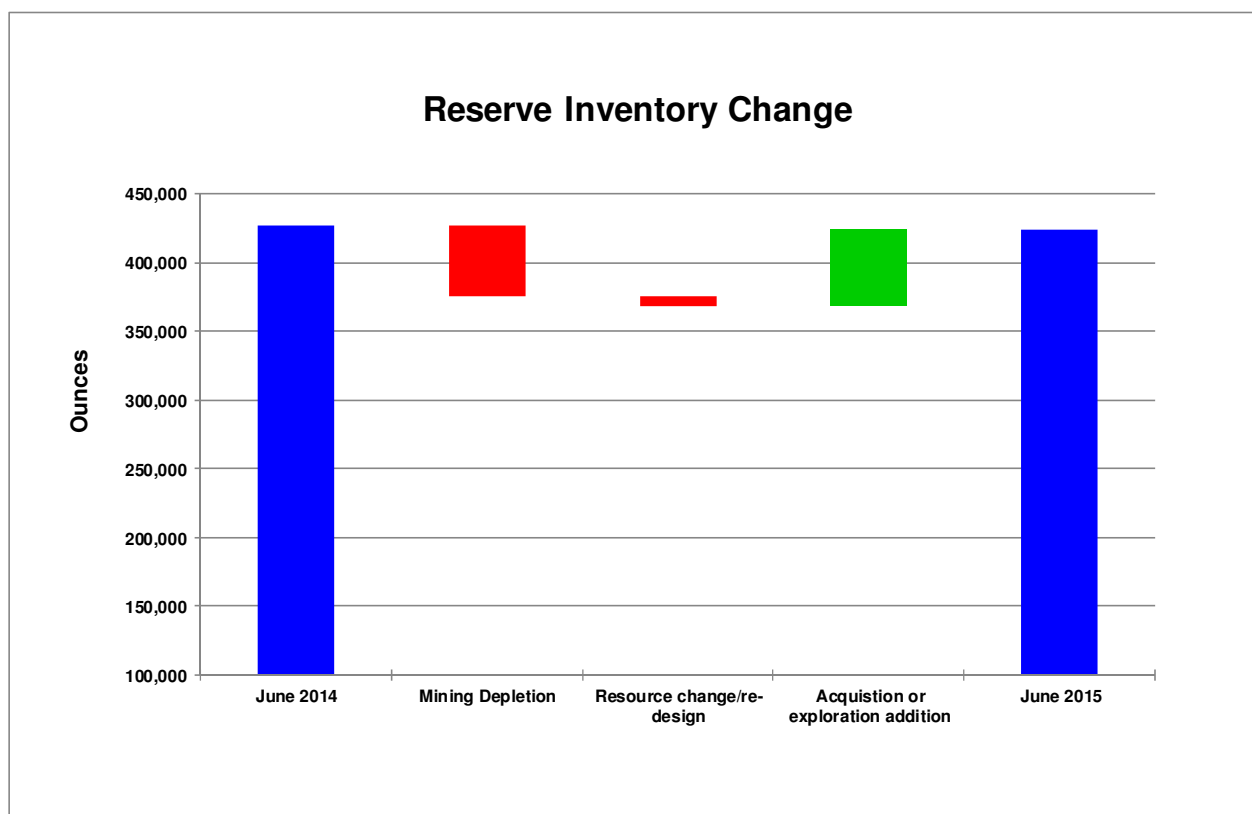
Note: Figures rounded to nearest 10,000 tonnes, 0.1g/t and 1,000 ounces. Rounding errors may occur.

### Ore Reserve Commentary

All Ore Reserves have been reported from Measured and Indicated Resources only. Saturn, Mars & Perseverance ore reserves are generated from current operational pit designs and resource models depleted by end of June 2015 open pit pick-ups. All ore reserves have been calculated from a number of internal and external mining optimisation studies using appropriate cost, geotechnical, slope design criteria, dilution, cut-off grade and recovery parameters. A gold price of A\$1,400/oz has been generally used with A\$1,450/oz for Vivien.

Mining costs for the Galaxy and Kathleen Valley open pits are currently budgeted operating costs. Costs for Vivien Underground mining and ore haulage are based on current contract rates. Reserves for Morning Star and some Mt Magnet Satellite Pits utilise older resource models that existed when Ramelius acquired the project in 2010. Reserves for Satellite pits are generated from new pit optimisations and have been compared to earlier pit designs. Mt Magnet Stockpiles consist of ROM stocks & Low Grade stocks mined post 2010. The Vivien reserve is based on underground mine design and BFS study carried out by Ramelius in 2014.

Further detailed information relating to generation of the reserve estimates is attached below in Table 1 - JORC 2012 Reporting Criteria.



**Figure 7: Reserve Inventory Change**

#### **Competent Persons Statements**

*The information in this report that relates to Mineral Resources is based on information compiled by Rob Hutchison, a Member of the Australasian Institute of Mining and Metallurgy. Rob Hutchison has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking 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'. Rob Hutchison is a full-time employee of the company and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

*The information in this report that relates to Ore Reserves is based on information compiled by Mark Zeptner, a Member of the Australasian Institute of Mining and Metallurgy. Mark Zeptner has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking 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'. Mark Zeptner is a full-time employee of the company and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

#### **Forward Looking Statements**

*This report contains certain forward looking statements with respect to Ramelius' operations, production grades and other matters that are subject to various risks and uncertainties. Actual results, performance or achievements could be significantly different from those expressed in or implied by those forward looking statements. Such forward looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties and other factors that are beyond the control of Ramelius that may cause actual results to differ materially from those expressed in the forward looking statements contained herein. Ramelius Resources Limited gives no warranties in relation to the information and statements within this report.*



**TABLE 1 - JORC REPORTING CRITERIA**

Section 1	Sampling Techniques and Data					
Project	<b>Mt Magnet</b> , includes Galaxy, Morning Star, Water Tank Hill, Hill 50 Deeps, Morning Star Deeps and numerous smaller deposits - Mt Magnet Satellite Deposits. Galaxy consists of the Saturn, Mars, Titan, Perseverance and Brown Hill open pit deposits. Blackmans satellite deposit announced June 2015.		Western Queen	Coogee	Vivien	Kathleen Valley
Project History	Field discovered in 1891. Hill 50 UG mine operated 1934-1976 & 1981-2007. Recorded production of 5.5 Moz. Majority of drilling data is historic and by numerous companies including WMC, Metana Minerals, Hill 50 Gold and Harmony Gold. Project acquired by Ramelius Resources Ltd (RMS) in 2010, with exploration, mining and milling recommencing early 2012. Blackmans deposit drilled by Harmony 2006 & RMS 2014/15.		Historic underground production in 1936/37. Significant drilling and exploration by WMC in early 1990's. Western Queen (WQ) pit mined by Equigold 1998-2001. Western Queen South (WQS) mined by Harmony Gold in 2007. Mined by RMS 2013/14.	Discovered in mid-1990's. Majority of drilling by Sovereign Resources shortly after discovery in 1996, with lessor amounts by Harmony Gold (2002) and recently by Ramelius (2012). Mined by RMS 2013/2014.	Historic underground production in early 1900's. Early drilling by Asarco, Wiluna Mines and Australian Goldfields (AGFNL). Pit mined on 1997/98 by AGFNL. Major drilling by Agnew Gold Mining Company in 2000's. RMS acquisition and drilling 2013.	Historic underground production in early 1900's at Yellow Aster (YA) and Nils Desperandum (ND). Explored by Newmont (1980's), Sir Samuel Mines/Jubilee Mines (1990's - 2000's) and Xstrata (2012). RMS acquisition & drilling in 2014.
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.		Sampling was completed using a combination of Reverse Circulation (RC) and Diamond Drilling (DD). RC drill samples were collected at 1m intervals in a cyclone at the side of the drilling rig and a sub-sample collected via a riffle or cone splitter. A split portion weighing 2-3kg was in collected in numbered sample bags. The remaining portion was laid out on the ground for logging. Occasional wet samples were not split but collected in a plastic bag then spear sampled. Some samples were collected as 2m or 4m composites. These were generally outside mineralised areas, with exception of early Kathleen Valley holes. Diamond Drilling (DD) core was sampled as 1m or geologically selected intervals. Core was sawn to provide half core samples for analysis. Core outside lode or mineralised zones is not always sampled.			
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.		All sampling by conventional gold industry drilling methods. More recent RC drilling have duplicate samples collected to test sample representivity.			
	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		Sampling Technique details for historic drilling are often partial or unknown. At Mt Magnet numerous reports exist referencing similar methods of sampling, however detailed information is incomplete or lacking for the majority of older data or exists in hardcopy formats which have not been systematically investigated. Early RC drill sampling (pre 1990's) is likely to have used cross-over subs which could affect sample recovery and contamination to a greater degree than modern face sampling hammers. Early RC drilling may have been collected in bagged 1m samples and manually riffle split.			

	a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.				
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).	<i>Recent (+2009):</i> 860 RC and DD holes, with majority as RC using face sampling bit. Diamond drilling (DD) consists of NQ or HQ drill core. Most core not orientated. <i>Old:</i> Exploration/resource database contains 74,000 holes, with around 23,000 RC and 5,000 DD. Not all hole types recorded. Older RC holes may have used cross-over subs. Some RAB, AC or VAC holes may be included in shallow resource estimates (i.e. surficial laterites). Underground drilling includes some smaller core sizes such as BQ and grade control sludge holes.	Resource defined by 140 RC holes and 2 DD holes. RC used face sampling bit. 15 RC and 2 HQ diamond core holes were drilled by RMS in 2012. Core not orientated. RAB and AC holes exist but are not used for estimation	Drillholes for resource comprise 70 RC and 158 DD holes. DD holes are NQ size and normally have RC precollars. ~80% of drilling is post 2002 and deeper holes are mostly Diamond. Ramelius drilled 12 infill, geotechnical and exploratory DD holes (3 x HQ3, 7 x NQ2) in 2013. Core orientated using EzyMark.	Drillholes for resources comprise 854 RC and 56 Diamond holes. DD drillholes include HQ and NQ core sizes. Core was not orientated. The majority of drilling was completed by Jubilee Mines in 1992-96. Xstrata drilled 73 RC and 30 DD holes in 2012. RMS drilled 28 RC infill holes in 2014.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Core recovery has been logged for more recent drilling at Mt Magnet, Western Queen South, Kathleen Valley (post 2009) and Vivien (post 2002) and is generally excellent (~100%). Minor wet intervals occur and can affect RC sample recovery. Chip sample recovery is generally not logged. Voids relating to historic UG workings are logged as open or filled stope voids			
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Sample recovery at all deposits is generally excellent in weathered and fresh rocks. Recent drilling has utilised RC rigs of sufficient size and air capacity to maximise recovery and provide dry chip 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.	No indication of sample bias is evident or has been established			
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	Recent drilling (+2009) has been logged for lithology, oxidation, alteration, veining and sulphides and all core is photographed and unsampled core retained. Chip-trays were retained for RC precollars and holes. Older drilling generally has a minimum of lithology is logged for +90% of holes, with varying degrees of other information. All projects have a number of holes drilled and logged specifically for geotechnical purposes and the level of detail supports resource estimation, mining studies and metallurgical understanding.			
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Drillhole logging of RC chips & DD core is qualitative on visual recordings of rock forming minerals & estimates of mineral abundance. Photography exists for recent (+2002) DD core from all projects (except Blackmans).			
	The total length and percentage of the relevant intersections logged.	The entire length of drillholes are geologically logged			

Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Core holes are sawn and sampled as half core. Some 1/4 core sampling has occurred as checks. Older drilling details incomplete but where available were similar. Old Mt Magnet core may have been hand split in some instances
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Recent RC holes sub-sampled by rig mounted cone or riffle splitter. Majority of old drilling details unknown. Kathleen Valley (KV) 90's drilling collected in plastic bags and manually riffle split. Occasional wet samples spear sampled from plastic bags.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Sub-sample methods appear appropriate for deposit and sample type using excepted industry practices.
	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.	Recent RC samples have field duplicate samples taken at regular intervals and compared. For older sampling reports exist referencing similar methods, however detailed information is incomplete or lacking for the majority of older data or exists in hardcopy formats which have not been systematically investigated.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	All recent samples sub-sampled using accepted splitting techniques and have been delivered to laboratory for total preparation by crushing and pulverisation, before being sub-sampled for analysis. For recent Mt Magnet (+2009) samples pill standards have been frequently submitted testing sample preparation and homogenisation.
		Sample sizes are generally appropriate for grain size and material types being sampled, although nuggety gold exists at Vivien and Kathleen Valley and smaller samples, i.e. half NQ core, may be less representative than larger RC samples.
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.	Recent assaying (+2002) has all been by commercial laboratories including ALS, SGS, KalAssay and Genalysis, typically by 40-50g Fire Assay to give total contained gold. Screen Fire Assays have been used for 2013 vein samples at Vivien. Earlier assaying includes a number of techniques and laboratories and details are often incomplete or unknown. 1990's assays at Kathleen Valley were typically by Aqua regia 25g, but mineralised zones re-assayed by 1kg BLARG (Multilab - Leonora). Older Mt Magnet assays frequently use PAL assays conducted by site laboratories.
	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.	No field analyses of gold grades are completed. Quantitative analysis of the gold content and trace elements is undertaken in a controlled laboratory environment.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	Recent assaying (+2002) has had QAQC measures including certified reference standards, field duplicates, blank samples and umpire laboratory check samples carried out for all deposits by the various companies and have shown acceptable levels of accuracy and precision. For older data reports and tables exist, referencing similar QAQC methods, however detailed information is incomplete or lacking for the majority of old data. 1990's Kathleen Valley samples lack blanks and standards, but have frequent repeat assays using BLARG or SFA and a reasonable number of interlab check assays (Genalysis) carried out and compared.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel	The Competent person has verified significant intersections of recent RMS drilling during the resource modelling process
	The use of twinned holes	In most projects holes were not twinned deliberately, but there are frequent holes that are effectively twinned by varied drill angles and hole density. All significant projects have holes drilled more recently as a check of older drilling data.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Recent (+2002) data was captured using logging software (i.e. Field Marshall) and transferred to a central databases (i.e. SQL). Assay results are loaded electronically. All drillhole data is visually validated prior to resource modelling. For old data detailed information for verification of sampling and assaying is generally not available. In some cases i.e. Kathleen Valley, hardcopy data is available and checks have been conducted to verify original and electronic datasets.
	Discuss any adjustment to assay data	No adjustment of assay data

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.	Recent (+2002) collars have been surveyed by DGPS instruments or by mine site surveyors to sub-metre accuracy. RMS holes drilled at Mt Magnet, WQS and Vivien were downhole surveyed using electronic camera or gyroscopic survey tools. Old: Collar survey method is not recorded for all old holes, however at Mt Magnet and Vivien mine site surveyors were available and used. At Kathleen Valley older holes were frequently planned to a pegged survey grid and drilled on the grid to +/- 1-2m accuracy. Downhole surveys not available for all older drilling, notably vertical RC drilling at Coogee and Kathleen Valley. If present, downhole survey method frequently unknown.				
	Specification of the grid system used.	Local grids have been used for resource modelling of all deposits. Holes may have been picked up in local grid or MGA94 and then translated. Original survey coordinates are retained.				
	Quality and adequacy of topographic control.	Quality topographic surfaces have been generated more recently from aerial photogrammetry or detailed surveys. Some older drillhole RL data has been adjusted to match accurate topography				
Data spacing and distribution	Data spacing for reporting of Exploration Results.	The majority of Mt Magnet deposits are drilled on a 25m based sections and frequently closed to 12.5m. On section spacing is generally 20-50m, with spacing generally closer near surface and wider at depth. Some deposits are drilled on 20m section spacings.	WQS resource holes on 25m sections with variable 10-50m on section spacing.	Majority of Coogee drilling is 25m section by 10m on section spacing, with some infill to 5m on lines in core high grade zones and/or selected 12.5m sections.	Vivien drilling pattern generally on 25m sections and 10-30m eastings.	KV drilling pattern generally on 25m sections and 10-20m eastings and frequently closer.
	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.	Data spacing is appropriate to defining deposits and estimation process				
	Whether sample compositing has been applied.	RC: Vast majority of samples are 1m with minor 2 or 4m composites, generally outside mineralised areas. Diamond: 1m samples or geologically defined 0.3 - 1.5m samples. All data composited to 1m lengths for resource calculations.				
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.	Orientation of geological structure and deposit geometry is varied at Mt Magnet. Intercept angles are usually orthogonal or high-angle to stratigraphy and vary to suit individual deposits. Mineralisation is frequently complex with structurally controlled stratigraphic and cross-cutting sub-vertical trends. Drillhole dip angles are generally at a moderate to high angle to steeply dipping stratigraphy and mineralisation.	Drillholes are orientated orthogonal to the geological and mineralised trend. Intercept angles are moderate to high angle. Typically as -60° east dipping holes drilling a steeply -80° west dipping lode zone.	Drillholes are orientated orthogonal to the geological and mineralised trend. Intercept angles are at a high angle and close to true width. Most holes are vertical drilling a shallow -30° west dipping lode zone. New RMS drilling is -60° to the east.	Drillholes are orientated orthogonal to the geological and mineralised trend. Intercept angles are at a moderate to high angle to the lode. Typically as -60° NW dipping holes drilling a -75° SE dipping lode zone.	Drillholes are orientated orthogonal to the geological and mineralised trend. Intercept angles are at a high angle to the lode. Typically as -60° E dipping or vertical holes drilling a flat to shallow W dipping lode zone.



	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.	No bias considered present for all deposits. At Mt Magnet, potential for orientation bias for some individual holes exists, but no bias is believed evident at deposit scales.
Sample security	The measures taken to ensure sample security.	<i>Recent:</i> All samples have been collected by Ramelius geological staff. Samples are transported to the laboratory by commercial transport companies. The laboratory receipts received samples against the sample dispatch documents and issues a reconciliation report for every sample batch. <i>Old:</i> unknown
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No external audits or reviews of sampling techniques and data collection have been undertaken.

Section 2	Reporting of Exploration Results					
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.	Mt Magnet resources and reserves fall within the contiguous Mt Magnet tenement group. Consists of 62 Mining Leases and 6 Prospecting leases 100% owned by Mt Magnet Gold Pty Ltd, a wholly owned subsidiary of Ramelius Resources Ltd.	WQS falls within M59/208 owned 100% by Mt Magnet Gold Pty Ltd	Coogee falls within M26/477 owned 100% Ramelius Resources Ltd	Vivien falls within M36/34 owned 100% Ramelius Resources Ltd	Kathleen Valley mineral resources fall within M36/375 owned 100% Ramelius Resources Ltd
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	Operating mine site. No known impediments.	Recently operating mine site. No known impediments.	Recently operating mine site. No known impediments.	Operating minesite as of May 2015.	Operating minesite as of May 2015.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	In all deposits a large proportion of exploration work has been carried out by previous owners. i.e. Mt Magnet - WMC, Metana Minerals, Hill 50 Gold and Harmony Gold. Western Queen South - WMC, Equigold, Harmony Gold. Coogee - Sovereign Gold, Harmony Gold. Vivien - Asarco, Wiluna Mines, Australian Goldfields and Agnew Gold Mining Company. Kathleen Valley - Newmont, Sir Samuel Mines/Jubilee Mines and Xstrata. Work includes geological interpretation, soil sampling, exploration and resource drilling, geophysical surveys, data collation and modelling.				

Geology	Deposit type, geological setting and style of mineralisation	<p>Archaean gold mineralisation. Mineralisation is principally hosted within Banded Iron Formations (BIF) where gold is spatially associated with NE trending faults and associated with pyrrhotite or pyrite mineralisation. Additionally gold is commonly found in late stage felsic intrusives or structurally controlled zones which cross-cut stratigraphy on NE trend. Interpretation for Mt Magnet resources is based on a long-history of exploration, open-pit and underground mining. Numerous geological interpretations, pit fact maps and reports exist and almost all resources have been previously mined</p>	<p>Archaean gold mineralisation. The WQ, WQ central and WQ south zones are hosted by steeply dipping mafic - ultramafic greenstone stratigraphy. Mineralisation occurs as within a steeply dipping, NNW trending foliated mafic lode/shear zone displaying silica veining and alteration, and disseminated pyrite. The lode sits adjacent to an ultramafic contact.</p>	<p>Coogee is hosted by a felsic dacitic and rhyolitic units. Mineralisation is hosted within a shallow (-30°) west dipping lode/shear zone. Pit exposures show the lode zone to be associated with sericite-chlorite alteration, coarse pyrite-hematite mineralisation and foliation. It is interpreted as a Archaean structurally hosted lode gold deposit possibly occurring on a sedimentary layer within the volcanic sequence. High grade zones occur as SE plunging shoots within the shear.</p>	<p>Vivien is a typical orogenic structurally controlled Archaean gold lode system. It is a steeply dipping narrow quartz vein hosted within a dolerite/gabbro unit. It has strong geological continuity and is well understood from diamond drill core and historic mining and investigation. Mineralisation is related to a secondary phase of quartz veining with associated sulphide mineralisation. Vein width may relate to flexures in the lode and current interpretation is that several higher grade shoots plunge shallowly to the NE within the overall lode.</p>	<p>Kathleen Valley deposits are orogenic structurally controlled Archaean gold lode systems. The mineralisation is controlled by a W dipping N/S trending fault contact between the Jones Creek Conglomerate and underlying ultramafic rocks. Gold occurs in flat lying silica-biotite-pyrite altered lodes hosted by the Conglomerate just above the fault contact. The Mossbecker deposit, for example, extends over 350m strike and consists of 1 - 2 main sub-horizontal lodes.</p>
Drill hole information	<p>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;</p> <ul style="list-style-type: none"> <li>- easting and northing of the drill hole collar</li> <li>- elevation or RL (Reduced Level - elevation above sea level in metres) of the drill hole collar</li> <li>- dip and azimuth of the hole</li> <li>- down hole length and interception depth</li> <li>- hole length.</li> </ul>	No detailed tabulation of drilling is given. All drilling is historic and too numerous to list. Representative deposit views are attached.				

	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.	This report relates to resources and reserves based on existing drillhole datasets. No new exploration results are reported. All previous RMS significant new drilling results have been previously reported.
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.	No exploration results are reported. Intercepts used in resource modelling are typically defined by cut-off and/or geological interpretation. Lower cut-off varies from 0.5 to 2 g/t based on deposit style and whether open pit or underground mining scenario.
	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.	Vivien is example of highly mixed grade population with all quartz vein material modelled as lode zone but very erratic and nuggety gold grade values (frequently below nominal cut-off)
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents, gold only
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	No exploration intercepts reported. Mineralisation widths are effectively constrained by interpretation and modelling process
	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').	
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.	Appropriate deposit views have been included in the 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.	No exploration intercepts reported
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.	All deposits have had some degree of additional sampling or testwork in regard to geotechnical investigation, geochemical characterisation, metallurgical testwork and density measurement, usually on specific selected diamond core holes. Other exploration data is not material to resource estimation.
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).	Further work will consist of selected infill or extensional drilling on material projects likely to convert to reserves to extend mine life. Examples are Nil Desperandum at KV, Vivien depth extensions and a number of Mt Magnet open pit deposits.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Further work mainly comprises of infill drilling and no diagrams are attached

Section 3	Estimation and Reporting of Mineral Resources	
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.	<i>Recent (+2002):</i> Ramelius employs an SQL central database using Datashed information management software. User access to the database is regulated by specific user permissions. Only specific users can overwrite data. Data collection uses Field Marshall software with fixed templates and lookup tables for collecting field data electronically. A number of validation checks occur upon data upload to the main database. Recent data from Vivien (AGMC) & Kathleen Valley (Xstrata) has employed similar measures. <i>Old:</i> The majority of data has been inherited as SQL or access databases and integrity measures is largely unknown. Numerous old resource reports list previous validation exercises, however new checks have not been undertaken.
	Data validation procedures used.	Validation checks include electronic checks for missing assays and geology intervals, overlapping intervals, duplicate assays, EOH depth, hole collar elevations and assay value detection limits, negative and zero values. Some historic data, notably Kathleen Valley, has been checked against hardcopy logs and assay reports.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits	The Competent Person is a full time employee of Ramelius Resources Ltd and has made multiple site visits to all deposits. Visits confirmed understanding of deposits and datasets



	If no site visits have been undertaken indicate why this is the case.	Site visits made				
Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	Confidence in the geological interpretation of the deposits is high. All deposits have had a significant history of exploration or recent mining (except Kathleen Valley & Blackmans). Geological interpretations have been formulated over many years and multiple drilling campaigns.				
	Nature of the data used and of any assumptions made.	Numerous geological interpretations, pit or underground maps and reports exist and almost all resources have been previously mined to some degree. Drillhole geological logging and mapping data is primary information used to interpret geological and structural wireframes.				
	The effect, if any, of alternative interpretations on Mineral Resource estimation.	No alternate interpretations have been considered necessary				
	The use of geology in guiding and controlling Mineral Resource estimation.	At Mt Magnet mineralisation is principally hosted within Banded Iron Formations (BIF) where gold is spatially associated with NE trending faults and associated with pyrrhotite and pyrite mineralisation. Additionally gold is commonly found in late stage felsic intrusives which cross-cut stratigraphy in NE trend. For resource modelling the geology has generally been interpreted first followed by a separate interpretation of mineralisation envelopes. At WQS mineralisation occurs as within a steeply dipping, NNW trending foliated mafic lode/shear zone displaying silica veining and alteration, and disseminated pyrite. At Coogee mineralisation is hosted within a shallow (-30°) west dipping silica-pyrite lode zone within felsic volcanic units. At Vivien mineralisation is hosted by a steeply dipping quartz vein within a dolerite host unit and strongly associated with sulphide mineralisation within the vein. At Kathleen Valley mineralisation sits in sub-horizontal silica-biotite-pyrite altered lodes within a granitic conglomerate unit just above shallow dipping fault contact with underlying ultramafics.				
	The factors affecting continuity both of grade and geology.	Continuity is affected by geological extents and mineralisation as currently defined by drilling				
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.	Numerous variations. Examples: current Saturn pit cutback being mined is 700m long, 350m wide & 190m deep. Main Saturn BIF hosted orezone strikes length of pit, is 5-30m wide, subvertical and currently drilled to 350m vertical depth. Higher grade zones typically occurring as vertical shoots in BIFs. Titan felsic hosted stockwork deposit is wide zone 120m long, 70m wide and 70m high. Occurs 70-160m below surface. Minimum width in resource interpretations generally 3-4m, example Golden Stream narrow sub-vertical BIF hosted resource over 270m strike length, drilled to 90m down-dip.	Lenticular NNW striking and steeply west dipping (-70°) lode with width of 5-15m. Strike length of 350m. Drilled down dip extent of 160m and higher grade core zone plunging -40° to S. Occurs from 40 to 300m below surface.	Shallow dipping (-30°) tabular lode, 3-6m thick. Strike extent of 230m, drilled down dip extent up to 130m. Occurs 25-100m below surface. Smaller flat lying supergene zone, 2-5m thick sits above lode at base of complete oxidation (25-30m depth).	Narrow vein/lode style. Strikes NNE and dips at 70° to ESE. Average width approximately 2.7m, ranging between 1- 7m. Established strike length of 600m and down dip extent of 400m.	The Mossbecker deposit extends over 350m strike (to N). Gold mineralisation occurs in shallow dipping lodes 2-10m thick and 40-80m wide and plunges around 15° to the southwest. Lodes occur from 0-100m depth. The other deposits are of similar dimensions and geometry.

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.	Recent: Core deposits have been remodelled in 2012-2013. 3D mineralisation wireframes interpreted in Micromine. Often multiple domains were generated to reflect geological host, mineralisation style or local spatial trends and hard bound assay information at a nominal 0.7g/t (open-pit) cutoff. Estimation by anisotropic Ordinary Kriging or ID methods using 1m composited assay data in parent cells only. Topcuts applied by domain determined by review of population stats. All resources except Water Tank Hill have previous versions to compare. Models were validated visually against assay data. Old: A number of resources are based on previous resource estimates and models generated by Harmony Gold using Surpac software. Reports exist for all models to varying degrees of detail.	Three dimensional mineralisation wireframes interpreted in Micromine. One primary and 2 minor lode domains were generated to hard bound assay information at a nominal 1g/t cutoff. Estimation by anisotropic Ordinary Kriging and comparison ID <sup>3</sup> methods using 1m composited assay data in parent cells only. Appropriate topcuts applied by domain determined by population stats.	Three dimensional mineralisation wireframes interpreted in Micromine software. One primary and one supergene domain were generated to hard bound assay information at a nominal 1g/t cutoff. Estimation by anisotropic ID <sup>3</sup> method using 1m composited topcut assay data in parent cells only.	Three dimensional mineralisation wireframe interpreted in Micromine. Single lode domain interpreted based on quartz vein position, with minimum 1.5m downhole width. Grade estimation by Ordinary Kriging method using 1m composited topcut assay data to parent cells only. Anisotropic search ellipse using strike and dip and with NE plunge used reflecting previous interpretations and variography.	Three dimensional mineralisation wireframes interpreted in Micromine. Lode domains interpreted based on 0.5g/t cutoff. Hard bounded grade estimation by Inverse Distance & Ordinary Kriging methods using 1m composited topcut assay data to parent cells only. Anisotropic search ellipse based on domain variography.
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	All deposits have previous resource estimates which have been used as checks against current estimates. Mining by RMS at Mt Magnet (Galaxy), WQS and Coogee has also occurred and allowed comparison of resource estimates to production.				
	The assumptions made regarding recovery of by-products.	No by-products				
	Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).	No non-gold elements of significance. Low sulphur or sulphur directly related to ore grade material.				

	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	Galaxy block size 4m(X) x 10m(Y) x 5m(Z) with subcells. Parent cell estimation only. Other deposits similar sizes. Anisotropic search - maximum range 120m	Block size 4m(X) x 10m(Y) x 5m(Z) with subcells. Parent cell estimation only. Anisotropic search - maximum range 100m	Block size 5m(X) x 12.5m(Y) x 2.5m(Z) with subcells. Parent cell estimation only. Anisotropic search - maximum range 50m	Block size 5m(X) x 12.5m(Y) x 10m(Z) with subcells. Parent cell estimation only. Anisotropic search - maximum range 65m	Block size 5m(X) x 10m(Y) x 5m(Z) with subcells. Parent cell estimation only. Anisotropic search - maximum range 50m
	Any assumptions behind modelling of selective mining units.	No assumptions made in modelling SMU at resource stage				
	Any assumptions about correlation between variables.	Grades assumed to correlate along mineralised trends/wireframes and estimated using anisotropic searches matching correlation directions				
	Description of how the geological interpretation was used to control the resource estimates.	Mineralisation wireframes were constructed with reference to geological/mineralisation interpretations				
	Discussion of basis for using or not using grade cutting or capping.	All gold deposits with lognormal grade distributions. Top cutting used in all estimates as per industry practice, in 97.5 to 99.5 percentile range.				
	The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	Validation has generally included visual comparison against drillhole grades, volume comparisons, global grade statistic comparison and swath grade plots				
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content	All tonnages are estimated on a dry basis				
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	Cut-off grades are adopted on current operating cut-off grades, with variances for deposit mineralisation tenor, location and mining method. Mt Magnet open-pit resources are generally reported above 0.7 to 0.9 g/t. Mt Magnet, WQS and Vivien underground resources are nominally above 2-3g/t. Coogee & Blackmans reported above 1g/t. Kathleen Valley mineralisation encompassed and reported above 0.5g/t envelope. This cut-off encapsulates the mineralisation effectively and typically discriminates economic material from waste				
Mining factors	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.	Galaxy, Morning Star and Mt Magnet Satellite deposits, Coogee and Kathleen Valley are currently modelled as open pit deposits. Factors include potential pit depths, minimum mineralisation widths and economic cut-offs based on current contract mining equipment and milling facilities. Mt Magnet UG deposits, including Water Tank Hill, Vivien and WQS are currently modelled with consideration of extraction by conventional sub-level open stoping methods. The Saturn UG resource assumes a bulk underground sub-level cave type method.				

Metallurgical factors	<p>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.</p>	<p>Metallurgical treatment is based on current ore production or metallurgical testwork. Milling is occurring at Ramelius' Checkers mill (Mt Magnet), a 1.7 Mtpa CIL gold plant and Burbanks mill (Coolgardie), a 180Ktpa CIL gold plant. Mt Magnet and WQS deposits are currently or have recently been processed with recoveries around 90-92%. Coogee recently processed with recovery of 97%. Vivien and Kathleen Valley deposits have metallurgical testwork showing significant gravity recoveries (+50%) and good total recoveries (+95%) using conventional CIL milling.</p>
Environmental factors	<p>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.</p>	<p>All sites are now operating or recently operating mine sites and compliant with all legal and regulatory requirements. No significant environmental issues are currently known or envisaged.</p>
Bulk density	<p>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.</p>	<p>All deposits (except Blackmans) have a number of density measurements based on core samples using water immersion method. Calculated density is dry. The number of measurements is variable but there are enough to give representative average density values to use in ore and waste tonnage calculations. Blackmans has assumed densities.</p>



	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.	Density measurements are available for fresh core, but fewer measurements exist for oxidised or transitional materials. Oxidised densities used can include assumed values based on previous mining and CP experience.
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	All resources have dry densities assigned by geologically interpreted weathering horizon, plus rocktype where appropriate. At Vivien a variable density calculation is applied to fresh quartz lode based on ore grade. This fits with measured densities and the correlation between sulphide content with gold grade.
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	It is assumed the deposit densities can be represented by the average values determined or estimated by rocktype and oxidation type.
Classification	The basis for the classification of the Mineral Resources into varying confidence categories.	Mineral Resources have been classified into Measured, Indicated and Inferred categories based on drillhole spacing, geological confidence, information quality and grade continuity. Only a small proportion of resources have been classed as Measured and generally occur at a areas of high drilling density at the base of previously mined pits.
	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).	Appropriate account has been taken of all factors
	Whether the result appropriately reflects the Competent Person's view of the deposit.	The classification reflects the Competent Person's view
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	The Galaxy, WQS, Coogee, Vivien, KV and Blackmans mineral resource estimates have been reviewed by an external geological consultant. While a number of minor changes and enhancements were recommended, no significant flaws to the resource models were found. Historic drilling data information quality was not reviewed. Other Mt Magnet resources have not been externally reviewed.
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.	All deposits (except Blackmans) have a number of previous resource estimates for comparison. Much of the drilling data however is historic and methodology detail and quality assurance information is not always complete or in hardcopy records which have not been systematically investigated. Hence the bulk of resources have been assigned an indicated or inferred status. At the Mt Magnet deposits: Perseverance, Morning Star, St George, Mars and at Vivien and Kathleen Valley some underground mining voids exist and surrounding remnant resources if existing are given a maximum of Indicated status. Confidence levels are reflected by the classifications applied and reported.

	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.	The estimates are global estimates
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	For Mt Magnet, WQS, Coogee and Vivien all deposits have had some degree of recent or previous mining with production records available for comparison. Galaxy resource estimates were modified in 2012-13 to better match production data.

Section 4	Estimation and Reporting of Ore Reserves					
Mineral Resource estimate for conversion to Ore Reserves	Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.	Mt Magnet ore reserves are based on revised resource estimates generated by Ramelius, with the exception of the Morning Star open pit and St George underground which are based on previous Harmony resources	WQS - no Ore Reserve	Coogee - no Ore Reserve	Vivien ore reserve is based on the Ramelius 2014 Mineral Resource model	Kathleen Valley is based on Ramelius 2015 Mineral Resource models
	Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	Mineral Resources are reported inclusive of Ore Reserves				
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	The Competent Person is a full time employee of Ramelius Resources Ltd and has made multiple site. Visits have confirmed understanding of reserve work.				
	If no site visits have been undertaken indicate why this is the case.					
Study status	The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves	At Mt Magnet reserves are based on budgeted production, life of mine planning, feasibility and pre-feasibility studies conducted with the last 1 to 4 years. The Vivien & Kathleen Valley ore reserves were derived from Bankable Feasibility Studies completed in 2014 & 2015 respectively.				

	The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	Ore Reserves have been generated after studies appropriate to the deposit type, mining method and scale and are considered to be at least Pre-Feasibility level. Mining studies have been carried out both internally and using external consultants with appropriate geotechnical, hydrological, equipment, metallurgical and mining method information. Costs have been used from current budgeted mining, milling and administration costs. Environmental, social and other factors have been considered internally.
Cut-off Parameters	The basis of the cut-off grade(s) or quality parameters applied	Mt Magnet - open pit cut-off grade of 0.7 g/t, selective UG cut-off 3.5g/t, Saturn bulk UG cut-off grade 2.0 g/t. Vivien UG cut-off 4.3g/t. Kathleen Valley open pit cut-off of 1.7g/t.
Mining factors or assumptions	The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).	For Kathleen Valley & Mt Magnet Galaxy resources mineral resource models have been regularised to a parent block size to reflect likely SMU block size and mining resolution prior to optimisation and design work to generate ore reserves. For Vivien the resource model is used as is with appropriate planned development and stoping planned and unplanned dilutions.
	The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.	Appropriate mining methods are used. Open pit mining methods for Mt Magnet & Kathleen Valley using current design, mining equipment and cost parameters. Selective open stoping underground methods are used for Mt Magnet underground reserves, except for Saturn UG which assumes bulk UG mining methods. For Vivien a conventional, narrow, top-down, long hole stoping method is used.
	The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.	Geotechnical parameters and grade control are established at Mt Magnet pits from past and current mining practices. At Vivien a geotechnical study based on specific core holes has been carried out and used in the mine design. Grade control will be by level development face sampling of the narrow lode. Pits at Kathleen Valley utilised existing & new geotechnical studies for wall designs.
	The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).	For Kathleen Valley & Mt Magnet Galaxy resources mineral resource models have been regularised to a parent block size to reflect likely SMU block size and mining resolution prior to optimisation and design work to generate ore reserves. For Vivien the resource model is used as is with appropriate planned development and stoping planned and unplanned dilutions.
	The mining dilution factors used.	At Mt Magnet open pits dilution of 5% was used. At Vivien 20% dilution (0 g/t) is used if stopes between 1.5 and 2m and 10% dilution if wider than 2m. At KV dilution of 2.5 - 7.5% was applied.
	The mining recovery factors used.	At Mt Magnet open pits mining recovery of 98% was used. At Vivien mining recovery was 95% with 5% left as island rib pillars. At KV 95% mining recovery was used.
	Any minimum mining widths used.	At Mt Magnet a minimum width of around 3m is assumed. At Vivien, minimum stope width of 1.5m was assumed with 20% dilution (0 g/t) and 10% dilution if wider than 2m.
	The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.	Inferred mineral resources for Galaxy pits have been tested in optimisations but are not included in Ore Reserves or final pit economic evaluations. For Vivien the mining study includes 7% of gold production sourced from Inferred resources. These resources are immediately adjacent or below reserve mined areas. It is reasonable to expect some upgrade of inferred resources to reserves upon mining and grade control of less well drilled resource extents. The project viability is not dependent on the inferred resource.

Metallurgical factors or assumptions	The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.	Milling will use Checkers mill at Mt Magnet, a conventional gravity recovery and CIL processing circuit. Significant milling information historical and current is available for the Mt Magnet deposits.
	Whether the metallurgical process is well-tested technology or novel in nature.	Process is proven technology
	The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied	Significant milling information, historical and current, is available for the Mt Magnet deposits with long term recovery around 92%. A number of metallurgical tests, including gravity recovery, leach recovery, bond work index and concentrate mineralogy studies, have been carried out for the Vivien deposit from representative core samples and show the deposit is free milling, has high gravity recovery (+50%) and high overall recovery (95%).
	Any assumptions or allowances made for deleterious elements.	No deleterious elements present
	The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole	No bulk samples or bulk sample requirement
	For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?	No specifications, gold
Environmental	The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	Environmental studies including waste rock characterisation studies from drill samples, flora and fauna and hydrological surveys have been carried out for all projects. Mining Approvals are currently granted for the Mt Magnet Galaxy pits and four proposed satellite pits, KV pits & for the Vivien underground project. This included waste dump designs, tailings storage and clearing permits.
Infrastructure	The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	Current site infrastructure is in place and suitable for current and planned mining and milling operations. At Mt Magnet it includes accommodation camp, Checkers mill and tailings dams, offices, magazines, roads and gas power station. At Vivien & KV infrastructure requirements are relatively small, comprising offices, workshop, generators, underground fan, dewatering pumps, pipeline and magazine. Site access roads largely exist. Accommodation will utilise existing camps at Mt Magnet and Leinster.
Costs	The derivation of, or assumptions made, regarding projected capital costs in the study	Capital costs based on current costs and budget model or recent Feasibility studies.

	The methodology used to estimate operating costs.	Operating costs based on current costs and budget models. Additional costs i.e. void backfilling added where required
	Allowances made for the content of deleterious elements.	No deleterious elements present
	The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co- products	Using recent average gold price
	The source of exchange rates used in the study.	Cost models use Australian dollar
	Derivation of transportation charges.	Transport (Vivien & KV ore haulage) cost based on contracted rates
	The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.	Treatment costs based on known current milling costs. No penalties or specifications
	The allowances made for royalties payable, both Government and private.	Royalty costs are included in budget models, financial evaluations and feasibility models
Revenue factors	The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.	Mt Magnet and Kathleen Valley reserves use \$A1,400/oz. Vivien uses A\$1,450/oz.
	The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products	
Market assessment	The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.	Doré is sold direct to the Perth Mint at spot price
	A customer and competitor analysis along with the identification of likely market windows for the product.	Market window unlikely to change
	Price and volume forecasts and the basis for these forecasts	Price is likely to go up, down or remain same
	For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	Not industrial mineral

Economic	The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.	Discounted cash flows were carried out to determine relative NPV's, using a 5% annual discount rate.
	NPV ranges and sensitivity to variations in the significant assumptions and inputs	Sensitivity to gold price, grade and costs was also evaluated.
Social	The status of agreements with key stakeholders and matters leading to social licence to operate.	Agreements are in place with stakeholders including traditional land owner claimants, pastoralists and the local Shires
Other	To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:	No material risks or impacts are identified.
	Any identified material naturally occurring risks.	
	The status of material legal agreements and marketing arrangements.	
	The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	
Classification	The basis for the classification of the Ore Reserves into varying confidence categories	Reserves have been classified according to Resource classification. The majority are Probable with a smaller amount of Proven
	Whether the result appropriately reflects the Competent Person's view of the deposit	They reflect the Competent Person's view
	The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any)	No probable reserves are derived from measured resources

Audits or reviews	The results of any audits or reviews of Ore Reserve estimates	Vivien Ore Reserves have been reviewed by an independent mining consultant as part of the Bankable Feasibility process. No fatal flaws were found. No other reserves have been reviewed.
Discussion of relative accuracy /confidence	Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve 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 reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.	Confidence is in line with gold industry standards and the companies aim to provide effective prediction for current and future mining operations. No statistical quantification of confidence limits has been generated. Estimates are global by deposit. The Reserve is most sensitive to a) resource grade prediction, and b) gold price.
	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	
	Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.	
	It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	