



15th February 2017

Corporate Details

Ordinary Shares:
780,917,069

Market Capitalisation:
~\$245 million

Cash at 31 Dec 2016
~\$28.4 million

Debt
NIL

ASX Code: MOY

Board of Directors

Richard Procter
Non-Executive Chairman

Greg Bittar
Executive Director

Michael Chye
Non-Executive Director

Tim Kennedy
Non-Executive Director

Management

Glenn Dovaston
Chief Executive Officer

Richard Hill
Chief Financial Officer

Pierre Malherbe
Company Secretary

Peter Cash
GM Corporate Development

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Highly successful 2016 exploration program increases Ore Reserves for just A\$87/oz

Ore Reserves YTD up 48% and Mineral Resources up 14% despite mining depletion of ~97 k oz

- **Millennium's exploration strategy at the Nullagine Gold Project in WA is proving highly successful**
- **Significant increases in Ore Reserves and Mineral Resources despite mining depletion show the Company's exploration strategy is meeting its principal objective of increasing mine life**
- **Potential for expanded life of mine at Nullagine highlighted by ~75% of Mineral Resources now classified as Measured and Indicated**
- **Exploration and Ore Reserve conversion programs are generating outstanding return on investment, generating new Ore Reserves at just \$87/oz¹**
- **Metallurgical test work scoping study advancing to determine optimum processing route for fresh material**
- **These metallurgical studies aimed at unlocking ~850 koz Mineral Resources contained in fresh rock**

Millennium Minerals Limited (ASX: MOY) ("**Millennium**" or the "**Company**") is pleased to advise that the exploration strategy at its Nullagine Gold Project (**Project**) in WA continues to generate outstanding results.

Following the success of its +200,000 m drilling campaign in 2016, the Project's Ore Reserves for the year have increased by nearly 50 per cent to 185,900 oz (after mining depletion of 97,000 oz), and Mineral Resources have risen by 160,000 ounces to 1.3 M oz.

It is noteworthy that during the year, funds were targeted mainly toward Mineral Resource to Ore Reserve conversion, rather than drilling out greenfield prospects. To this end, new Ore Reserve ounces were added at a cost of just \$87/oz.

Approximately 75 per cent of the 1.3 M oz Mineral Resource is classified in the Measured and Indicated category. The total Group Mineral Resource inventory now stands at 31.8 Mt @ 1.3 g/t Au for 1,280,400 ounces and Ore Reserves at 3.99 Mt at 1.4 g/t Au for 185,900 ounces.

Millennium Chief Executive Glenn Dovaston said the new Ore Reserve and Mineral Resource figures demonstrated the success of the Company's exploration strategy.

¹ All currency units are Australian unless otherwise denoted



“We replaced almost 100,000 ounces of Ore Reserves mined during 2016 while increasing our Ore Reserves by nearly 50% since January 2016,” Mr Dovaston said.

“This strong result has been achieved at an extremely low cost, demonstrating that not only are we growing our Mineral inventory but we are also doing it in a highly cost effective manner - which paves the way for more strong financial returns.”

Metallurgical testwork is progressing as part of Millennium’s strategy to unlock the value of the ~850,000 oz of Mineral Resources contained in fresh rock, generally sitting below the oxide ore being exploited. Results of this work, which is part of an ongoing study, are expected during the March quarter 2017.

Mineral Resources

The total Project Mineral Resource estimate as at 31 December 2016, depleted for mining, is set out in Table 1 below:

Table 1: 2016 Mineral Resource Estimate² by Resource Category

Mineral Resource Category	Million Tonnes	Grade (g/t Au)	Thousand Ounces
Measured	11.02	1.3	459.7
Indicated	11.37	1.3	470.1
Inferred	9.37	1.2	350.6
Total	31.76	1.3	1,280.4

Ore Reserves

The total Project Ore Reserve estimate as at 31 December 2016, depleted for mining, is set out in Table 2 below:

Table 2: 2016 Total Ore Reserve Estimate² by Reserve Category

Ore Reserve Category	Million Tonnes	Grade (g/t Au)	Thousand Ounces
Proved	2.48	1.3	104.6
Probable	1.51	1.7	81.3
Total	3.99	1.4	185.9

Summary

The Mineral Resource and Ore Reserve estimates have been updated for a number of the Company’s gold deposits located within the Project area in the East Pilbara District of Western Australia (**Figure 1**).

Mineral Resource Estimates

Mineral Resources were updated for the following deposits based on further infill drilling, including the addition of six maiden Mineral Resources for Agate, Angela, Condor North-West, Hopetoun-Endeavour, Mundalla and Mustang.

² Figures may not sum due to rounding



Agate	Angela
Bow Bells	Condor North-West
Hopetoun-Endeavour	Mundalla
Mustang	Round Hill

The Mineral Resources for the following deposits were updated for mining depletion:

Bartons	Golden Eagle
Little Wonder	Junction
Otways	Shearers

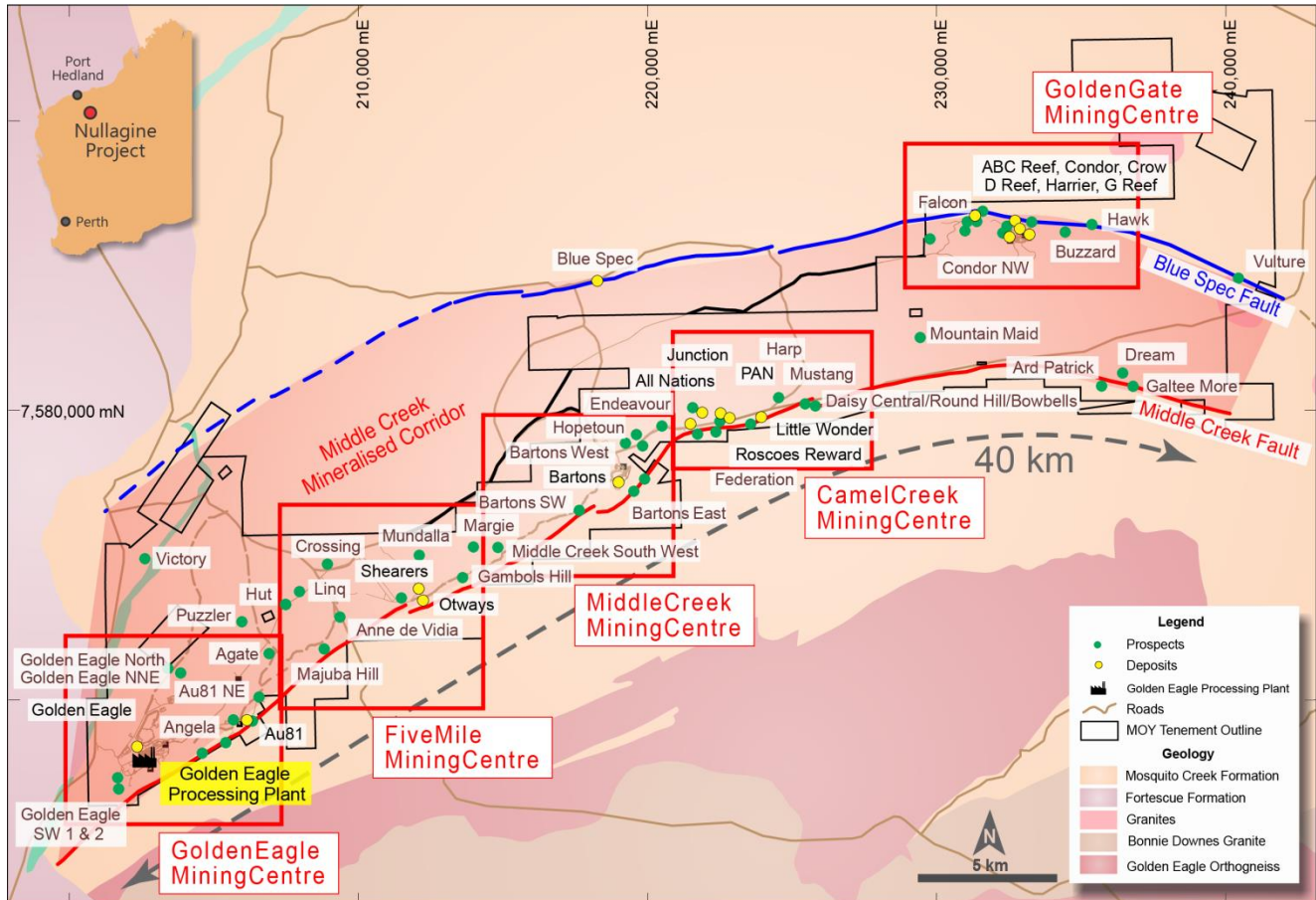


Figure 1: Nullagine Deposit Location Plan over regional geology

Mining depletion was calculated by intersecting the final end of month surveyed pit digital terrain model (DTM) with the Mineral Resource block model and subtracting/depleting the Mineral Resource above that DTM to the natural pre-mining surface.

The following Mineral Resources remain unchanged:

All Nations	Anne de Vidia
Au81	Condor
Crossing	Crow
Falcon	Gambols Hill
Golden Gate G Reef	Golden Gate ABC Reef + Harrier
Golden Gate D Reef	Hut
Junction	Majuba Hill
Roscoes Reward	



Table 3 details the total Mineral Resource estimate for the Project. Details of all Mineral Resource models are documented in the appended JORC compliant "Table 1".

Table 3: Nullagine Gold Project – Mineral Resource Statement¹ (31 December 2016)

Nullagine Gold Project - Mineral Resource Statement									
Deposit	Measured		Indicated		Inferred		Total Remaining		
	Million Tonnes	Grade g/t Au	Million Tonnes	Grade g/t Au	Million Tonnes	Grade g/t Au	Million Tonnes	Grade g/t Au	Au Ounces
Agate ³			0.23	1.2	0.11	1.1	0.34	1.2	12,600
All Nations ³	0.44	1.6	0.48	1.2	0.27	1.1	1.19	1.3	50,700
Anne de Vidia ³	0.18	1.9	0.39	1.1	0.21	1.1	0.78	1.3	32,500
Angela ³			0.82	1.3	0.29	1.3	1.10	1.3	45,400
Au81 ²	0.15	1.6	0.28	1.2	0.89	0.9	1.32	1.0	43,000
Bartons ³	0.31	2.0	0.89	1.5	0.58	1.6	1.78	1.6	92,300
Bow Bells ³			0.21	1.5			0.21	1.5	9,800
Condor ⁴	0.03	3.7	0.05	3.3	0.02	3.1	0.10	3.4	11,200
Condor North-West ³			0.06	3.3	0.01	2.7	0.07	3.2	7,300
Crossing ³			0.30	1.2	0.06	1.3	0.36	1.3	14,600
Crow ³	0.07	3.1	0.03	3.0	0.01	3.0	0.11	3.0	10,400
Falcon ⁴	0.06	3.0	0.02	2.4			0.08	2.9	7,300
Gambols Hill ³			0.60	1.5	0.51	1.3	1.11	1.4	50,400
Golden Gate G Reef ³	0.01	3.7	0.03	3.8	0.01	2.3	0.05	3.6	6,200
Golden Eagle ²	7.82	1.1	3.67	1.0	3.85	1.0	15.33	1.1	522,700
Golden Gate ABC Reef + Harrier ⁴	0.18	2.1	0.12	2.7	0.03	1.8	0.33	2.3	24,600
Golden Gate D Reef ⁵	0.02	3.9	0.02	4.0	0.05	4.1	0.09	4.0	11,600
Hopetoun-Endeavour ³			0.17	1.4	0.50	1.4	0.67	1.4	30,100
Hut ³			0.29	1.2	0.09	1.0	0.38	1.1	13,800
Junction ³	0.05	1.9	0.06	1.5	0.04	1.5	0.15	1.7	7,700
Little Wonder ³	0.43	1.7	0.23	1.6	0.14	1.8	0.80	1.7	42,700
Majuba ³			0.41	1.6	0.26	1.2	0.68	1.5	31,500
Mundalla ³			0.28	1.4	0.17	1.4	0.45	1.4	20,600
Mustang ³			0.07	2.0	0.11	1.3	0.18	1.6	9,400
Otways ³	0.48	1.1	0.76	1.1	0.54	1.0	1.78	1.1	60,700
Roscoes Reward ³	0.34	1.4	0.31	1.3	0.25	1.3	0.91	1.3	38,700
Round Hill ³			0.30	2.0	0.10	2.1	0.40	2.1	26,700
Shearers ³	0.46	1.2	0.29	1.7	0.26	1.6	1.00	1.4	45,900
Total	11.02	1.3	11.37	1.3	9.37	1.2	31.76	1.3	1,280,400

Notes:

1. Figures in Table may not sum due to rounding.
2. The Golden Eagle and Au81 deposit was estimated using ordinary kriging methodology for grade estimation by CSA Global.
3. Agate, All Nations, Angela, Anne de Vidia, Bartons, Bow Bells, Crossing, Condor North-West, Crow, Gambols Hill, Golden Gate G Reef, Hopetoun-Endeavour, Hut, Junction, Little Wonder, Majuba, Mundalla, Mustang, Otways, Roscoes Reward, Round Hill and Shearers were estimated by ordinary kriging by Millennium Minerals Ltd.
4. Golden Gate satellite deposits, namely Falcon, Condor, ABC Reef, Harrier, and D Reef were estimated using ordinary kriging by Dampier Consulting.



Ore Reserve Estimates

The JORC compliant Ore Reserve estimates as at 31 December 2016 is 3.99 million tonnes at 1.4 g/t Au for 185.9 thousand ounces.

Material Assumptions Applied in Ore Reserves Estimates

Ore Reserves are based upon twenty stratigraphically domained and ordinary kriged block Mineral Resource models. The Ore Reserve estimates are defined from those Mineral Resources by completing pit optimisations and subsequent pit designs based on geotechnical parameters and practical mining considerations.

The following material assumptions have been applied to the Ore Reserves:

- Gold price of \$1600 per ounce
- Current mining and processing operating costs
- Geotechnical recommendations (as per current practice and advised by external consultants)

Ore Reserve Classification

All Proved and Probable Ore Reserves are derived from Measured and Indicated Mineral Resources and surveyed stockpiles. The Mineral Resource estimates reported are inclusive of the Ore Reserves. Inferred Mineral Resource is treated as waste in the pit optimisation and therefore not included in the Ore Reserve estimation process.

Mining Method

The mining method is conventional drill and blast and load and haul with an excavator and large open pit mining equipment. This is considered to be appropriate for the style of mineralisation being exploited and is applied to many similar type operations in Western Australia.

A 9% gradient and 14 m width (including safety windrow) is used in in-pit ramp designs.

Geotechnical and hydrogeological recommendations have been applied during pit optimisation and incorporated in design with ongoing reviews. Mining dilution and ore loss factors have been applied during pit optimisations and hence are taken into account in the Ore Reserve estimates.

Ore Processing

The existing 1.5 Mtpa nameplate ore processing facility and infrastructure consisting principally of a primary crusher, SAG mill, gravity circuit and carbon-in-leach (CIL) tankage will be utilised for the processing of the Ore Reserves. Metallurgical recovery factors are based on metallurgical tests and ongoing actual plant recovery reconciliation factors. Recovery factors ranging from 70% to 95%, dependent on particular areas in the pits and deposits, have been assumed in the pit optimisation and Ore Reserves estimates.

Cut-off Grade

An economical block cut-off grade is calculated and applied to individual deposits in the block model in estimating the Ore Reserves. The cut-off grade varies between the deposits due to varying haulage costs from pit to ROM (located at the processing plant).



Material Modifying Factors

The inputs for the Ore Reserve estimates are consistent with current actual operating practices and experience. The infrastructure required for the mining and processing of the Ore Reserves is in place and operating. Agreements with all key stakeholders are in place and active.

Mining approvals, Native Vegetation Clearing Permit and License to operate have been granted for Golden Eagle, Shearers, Otways, Little Wonder, All Nations, Roscoe Reward, Junction, Anne de Vidia and Gambols Hill. Further approvals process for mining Round Hill, Majuba Hill, Mundalla, Angela, Mustang, Bow Bells, Agate, Hill, Crossing and Hut have commenced.

Table 4 comprises the Ore Reserves for the Project's individual gold deposits. Details of the Ore Reserve estimation are documented in the appended JORC compliant "Table 1"

Table 4: Nullagine Gold Project – Ore Reserve Statement¹ (31 December 2016)

Prospect	COG ² Au (g/t)	Proved		Probable		Total		
		Ore (kt)	Au (g/t)	Ore (kt)	Au (g/t)	Ore (kt)	Au (g/t)	Ounces
Shearers	> 0.58	36.4	1.8	4.4	2.9	40.8	1.9	2,500
Otways	> 0.55	14.5	1.1	-	0.0	14.5	1.1	500
Little Wonder	> 0.63	255.4	1.7	47.1	1.9	302.5	1.7	16,500
Majuba	> 0.55	-	-	299.2	1.6	299.2	1.6	15,700
Anne de Vidia	> 0.57	100.0	1.9	44.6	1.4	144.6	1.8	8,300
All Nations	> 0.62	304.2	1.5	79.3	1.4	383.6	1.4	17,800
Crossing	> 0.54	-	-	92.6	1.2	92.6	1.2	3,500
Round Hill	> 0.67	-	-	107.6	2.7	107.6	2.7	9,400
Gambols	> 0.60	-	-	153.0	1.7	153.0	1.7	8,600
Hut	> 0.56	-	-	115.8	1.2	115.8	1.2	4,300
Junction	> 0.63	21.1	2.4	1.6	1.5	22.7	2.3	1,700
Roscoe Reward	> 0.63	162.3	1.5	41.4	1.6	203.7	1.5	9,900
Golden Eagle	> 0.71	628.3	1.6	18.2	1.4	646.5	1.6	33,500
Mundalla	>0.63	-	-	41.5	2.2	41.5	2.2	3,000
Angela	>0.55	-	-	183.9	1.3	183.9	1.3	8,000
Hopetoun- Endeavour	>0.65	-	-	68.0	1.6	68.0	1.6	3,400
Bow Bells	>0.7	-	-	22.5	2.3	22.5	2.3	1,600
Agate	>0.56	-	-	102.4	1.3	102.4	1.3	4,200
Mustang	>0.56	-	-	45.8	2.0	45.8	2.0	2,900
Condor NW	>0.56	-	-	40.7	3.6	40.7	3.6	4,700
Sub-total		1,522.2	1.6	1,509.8	1.7	3,032.0	1.6	159,900
Stockpiles								
Golden Eagle		538.3	0.8			538.3	0.8	14,700
Shearers		125.3	0.7			125.3	0.7	3,000
Otways		277.8	0.9			277.8	0.9	7,800
Roscoes Reward		7.1	0.8			7.1	0.8	200
Bartons		4.5	1.0			4.5	1.0	100
Little Wonder		0.4	0.7			0.4	0.7	-
Others		3.9	1.3			3.9	1.3	200
Sub-total		957	0.8			957	0.8	26,000
Total Ore Reserves		2,480	1.3	1,510	1.7	3,989	1.4	185,900

¹ Figures in Table may not sum due to rounding.

² Cut-off grades vary due to variable haulage costs from pit to ROM.



ENDS

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Competent Persons Statements – Exploration Results

Mr Andrew Dunn (MAIG), a geologist employed full-time by Millennium Minerals Limited, compiled the technical aspects of this Report. Mr Dunn is a member of the Australian Institute of Geoscientists and has sufficient experience that is relevant to this style of mineralization and type of deposit under consideration and to the activity that is being reported on 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 Dunn consents to the inclusion in the report of the matters in the form and context in which it appears.

Competent Persons Statements – Mineral Resources

The information in this Report which relates to Agate, Angela, Golden Gate ABC Reef-Harrier, Anne De Vidia, All Nations, Au81, Bartons, Bow Bells, Condor, Condor North-West, Crossing, Crow, D Reef, Falcon, Gambols Hill, G Reef, Golden Eagle, Hopetoun-Endeavour, Hut, Junction, Little Wonder, Majuba, Mundalla, Mustang, Otways, Roscoes Reward, Round Hill and Shearers Mineral Resource estimates accurately reflects information prepared by Competent Persons (as defined by the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves).

The Agate, Angela, Anne De Vidia, All Nations, Bartons, Bow Bells, Condor North-West, Crow, Gambols Hill, G Reef, Hopetoun-Endeavour, Hut, Junction, Little Wonder, Majuba, Mundalla, Mustang, Otways, Roscoes Reward, Round Hill and Shearers Mineral Resource estimates have been compiled and prepared by Ms Christine Shore (MAusIMM) who is a full-time employee of Millennium Minerals Limited who is a Competent Person as defined by the Australasian Code for the reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) 2012 Edition and who consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

The Golden Eagle Mineral Resource estimate has been compiled and prepared by Dr Bielin Shi, (MAusIMM) of CSA Global Pty. Ltd. who is a Competent Person as defined by the Australasian Code for the reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) 2012 Edition and who consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

Golden Gate ABC-Harrier, Condor, D Reef and Falcon Mineral Resource estimates have been compiled and prepared by Mr Andrew Paterson, (MAusIMM) of Dampier Consulting who is a Competent Person as defined by the Australasian Code for the reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) 2012 Edition and who consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

The Au81 Mineral Resource estimate has been compiled and prepared by Mr Grant Louw, (MAIG, MGSSA) of CSA Global Pty. Ltd. who is a Competent Person as defined by the Australasian Code for the reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) 2012 Edition and who consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.



Competent Persons Statements – Ore Reserves

The information in this Release which relates to the Ore Reserve estimates accurately reflect information prepared by Competent Persons (as defined by the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves).

The information in this public statement that relates to the Ore Reserves at the Nullagine Gold Project covering the All Nations, Golden Eagle, Little Wonder, Junction Roscoes Reward, Round Hill, Shearers, Otways, Anne de Vidia, Gambols Hill, Mundalla, Angela, Mustang, Bow Bells, Hopetoun-Endeavour, Condor North-West, Agate, Crossing, Hut and Majuba Hill projects is based on information resulting from technical works carried out by Mr Srinivasa Rao Gadi, who is a member of the Australasian Institute of Mining and Metallurgy.

Mr Srinivasa Rao Gadi is a full time employee of Millennium Minerals Limited and has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Srinivasa Rao Gadi consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Qualifying Statement

This release may include forward-looking statements. These forward-looking statements are based on Millennium's expectations and beliefs concerning future events. Forward-looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of Millennium, which could cause actual results to differ materially from such statements. Millennium makes no undertaking to subsequently update or revise the forward-looking statements made in this release, to reflect the circumstances or events after the date of this release.

JORC 2012 Edition - Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling (e.g. 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 representatively 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 (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> No surface samples were used in the estimation of Mineral Resources or Ore Reserves. Reverse circulation drilling (and more rarely diamond core drilling) was used to obtain 1 m samples, from which approximately 3 kg was dried, crushed, pulverised and subsampled at the laboratory to produce a 50 g charge for fire assay, as per industry standard methods. Sampling was carried out under Millennium protocols and QAQC procedures, as per industry best practice (field & lab duplicates, blanks & certified reference standards). 1 m interval RC and core samples were sub-sampled to 3 kg by a rig-mounted cone or riffle splitter under Millennium's supervision. Where twinned core holes were drilled for metallurgical test work, the core was sampled in predominantly 1m intervals, except in the case of contacts (minimum interval 0.3m).
Drilling techniques	<ul style="list-style-type: none"> Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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). 	<ul style="list-style-type: none"> Reverse circulation (RC) drilling and Diamond (HQ3 and NQ3) triple tube drilling was used; Mineral Resources were estimated using predominantly RC drilling samples. All core was oriented, using Reflex electronic orientation device (Bottom of hole orientation).
Drill sample recovery	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> A record of RC sample recovery % and moisture content was recorded by field assistants under supervision of the rig geologist. Check weights were done periodically at the rig. Overall sample weight and quality were good to very good (2.0-3.5 kg). ALS (assay lab since mid-2011) also records sample weights on receipt of samples; 2013 average weight was 2.4kg. The rig geologist closely monitored the rig to ensure all the sample was collected in each bulk plastic & calico bag prior to removal from the cyclone splitter, and action taken if sample weights showed marked variation. Core recoveries from diamond drilling were generally >98%. There is no observed correlation between sample recovery and gold grade.
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> The logging has been validated and is regarded as being comprehensive and of a high quality. Geological logging is both qualitative and quantitative in nature. Whilst drilling the lithology, colour, grain size, regolith, alteration, weathering, veining and mineralisation were recorded. Sulphide and vein content were logged as a percentage of the interval. Photography has been taken of the diamond drill core. RC chip trays are retained at site.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> For core samples, the core was split via core saw. ¼ core samples assayed; ¼ core was retained, and in the case of metallurgical holes, ½ core was used for metallurgical testing. The RC samples were split using a rig mounted, levelled cone splitter. The vast majority of the samples were dry with moist and wet samples recorded on the sampling sheet. The sample preparation followed industry best practice in sample preparation involving oven drying, crushing (core) and pulverisation of the entire subsample (total prep), and LM5 grinding to a grind size of 85% passing 75 micron. The sample sizes are industry-standard and considered to be appropriate to correctly represent mineralisation at the deposits based on: the style of mineralisation, the thickness and consistency of the intersections, the sampling methodology and assay ranges for gold.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> 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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	<ul style="list-style-type: none"> The industry best practice standard assay method of 50g charge Fire Assay for this style of mineralisation was employed. Commercially prepared, predominantly matrix-matched blanks, low, medium & high value certified reference QAQC standard, blanks, assay laboratory and field duplicate samples were inserted at a rate of 1:20 into the sample stream The QAQC results from this protocol were considered to be acceptable. No geophysical tools were used to determine any element concentrations used for these results. Sample preparation checks for fineness were carried out by the laboratory as part of their internal procedures to ensure the grind size of 85% passing 75 micron was being attained. Laboratory QAQC involves the use of internal lab standards using certified reference material, blanks, splits and replicates as part of the in house procedures. Results highlight that sample assay values are accurate and that contamination has been contained.
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> Metallurgical holes were drilled and assayed at all deposits; these were twinned to RC holes to provide confirmation of the grade within sampled intervals and geological relationships. A Senior Exploration Geologist from Millennium has visually verified the significant intersections using material collected in the RC chip trays. All significant intersection calculations were cross checked by the exploration manager. Assay results were not adjusted.

Criteria	JORC Code Explanation	Commentary
Location of data points	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Immediately post hole completion, a handheld GPS coordinate was taken, then subsequently the collars surveyed with a real Time Kinematic (RTK) DGPS device to a ± 10mm positional precision. All collars were then validated against planned positions as a cross check. Surveyed collar co-ordinates were uploaded into the Company SQL database. Grid datum is GDA94 51K (East Pilbara). Downhole surveys were completed on all holes at 30m maximum downhole intervals (initial survey at 10m downhole). Surveys were magnetic via electronic multi-shot survey tool (Campro dual or Camteq), as lithologies have negligible magnetic susceptibility (greywacke). Re-surveying was carried out to check the quality of measurements. Aerial Photogrammetry \pm LIDAR was produced by Fugro Surveys (± 0.2m vertical & ± 0.1m horizontal). Survey control points were marked out by licensed surveyor for the Fugro Survey. An error was noted in early RC drilling collar RL co-ordinates (ellipsoid not geoid model); these holes were adjusted to the Fugro DTM surface RL and recorded as DTM RL in the SQL database; the original survey RL was retained. The DTM RL was used for Mineral Resource estimation. Otherwise there was good agreement of surveyed collars and Fugro DTM.
Data spacing and distribution	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> RC drilling is predominantly on 20 X 20m spacing in all the deposits both along strike and down dip; this grades to 30 - 40m spacing at depth (generally below current pit designs) or along deposit margins. The Mineral Resource consultants consider this sufficient to meet the expected minimum requirements for resource classification (Measured typically 20-30m). Thus far the 20m by 20m spacing has been sufficient to establish geological and grade continuity. 1m RC assay composites were used. A small number of core composites were retained with a length of less than 1m (minimum 0.3m).
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Geological mapping and structural measurements have been taken at the deposit and they confirm the orientation of mineralisation defined by the drilling. Based upon the above information the drilling was largely perpendicular to the mineralisation with some exceptions. This was due to steep and inaccessible terrain that meant holes needed to be drilled slightly oblique to the mineralisation to intersect the desired target. No significant orientation bias has been identified in the data at this point.
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> Samples were given an ID, cross checked by field personnel that the interval assigned was matched, packed and then the geologist on the rig will check sample ID. The laboratory assigned the same sample ID to the pulps and checking against geology, alteration and further use of QAQC to confirm data ID. Samples were collected on completion of each hole and stored in a secure shed prior to dispatch to the assay laboratory. Monitoring of sample dispatch is undertaken for samples sent from site and to confirm that samples have arrived in their entirety and intact at their destination. Sample security is managed with dispatch dates noted for each sample by the core technician, this is checked and confirmed at the laboratory on receipt of samples and discrepancies are corrected via telephone link up with laboratory and project geologist
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> Internal lab audits conducted by Millennium have shown no material issues. Sampling and data protocols have been externally audited by CSA Global with no matters that were serious or were likely to impair the validity of the Mineral Resource estimate.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code Explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> 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 licence to operate in the area. 	<ul style="list-style-type: none"> All the deposits and prospects lie within fully granted Mining Leases within the Pilbara Gold Field (46), as detailed below. All the tenements are in good standing with no known impediments. Agate^{^+} - M46/262 (100% Millennium) All Nations^{*+} - M46/98, M46/199 & M46/225 (100% Millennium); Anne de Vidia^{^-} M46/262 (100% Millennium); Angela^{^+} - M46/186 (100% Millennium); Au81[^] - M46/138 (100% Millennium); Bartons[*] - M46/3, M46/164 & M46/441 (100% Millennium);; Bow Bells^{*[®]} - M46/166 (100% Millennium); Condor[*] - M46/129 & M46/200 (100% Millennium);; Condor North-West[*] - M46/200 (100% Millennium);; Crossing^{^+} - M46/266 (100% Millennium); Crow[*] - M46/129 (100% Millennium); Falcon[*] - M46/200 (100% Millennium); Gambols Hill^{*+} - M46/261 (100% Millennium); G Reef[*] - M46/47 (100% Millennium); Golden Gate ABCD[*] - M46/47 & M46/129 (100% Millennium);; Golden Eagle^{^+} - M46/186 & M46/300 (100% Millennium); Harrier[*] - M46/47 (100% Millennium); Hopetoun - Endeavour^{*[®]} - M46/57 & M46/442 (100% Millennium); Hut^{^+} - M46/265 & M46/266 (100% Millennium); Junction^{*[®]} - M46/442 (100% Millennium); Little Wonder^{+*} - M46/146, M46/198 & M46/166[®] (100% Millennium); Majuba Hill^{^+} - M46/192 & M46/445 (100% Millennium); Mundalla[*] - M46/50 & M46/445+ (100% Millennium); Mustang^{*[®]} - M46/166 (100% Millennium); Otways^{*+} - M46/262 (100% Millennium); Roscoes Reward^{*[®]} - M46/166 and M46/442 (100% Millennium); Round Hill^{*[®]} - M46/166 (100% MML) Shearers^{*+} - M46/261 & M46/262 (100% Millennium); <p>[^] These tenements are located within the Palyku title claim (WC99/16). [*] These tenements are located within the Njamal title claim (WC99/8). ⁺ A \$10/oz royalty payable to Tyson Resources Pty Ltd. [®] Little Wonder (M46/166), Round Hill (M46/166), Junction (M46/442) and Roscoes Reward (M46/166 and M46/442) gross revenue royalty of 6.44% payable to Royalty Stream Investments (WA Gold) Pty Ltd for up to 20koz then it reverts to 1.5% rate for gold mined beyond 20koz ;</p>
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Exploration by other parties has been reviewed and taken into account when exploring. Previous parties conducted rock chip sampling, RAB & RC drilling and mapping. Millennium has predominantly redrilled areas of historical drilling by other parties with more recent holes. Where there was low confidence in the remaining holes and these had not been redrilled, these holes were excluded from Mineral Resource estimates (Au81 deposit).
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The Nullagine Project deposits are structurally controlled, sediment hosted, lode Au style of deposit. They are all situated in the Mosquito Creek Basin that consists predominantly of Archean aged, turbidite sequences of sandstones, siltstones and shales.

Criteria	JORC Code Explanation	Commentary
Drill hole Information	<ul style="list-style-type: none"> A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Where this table relates to exploration results, drill hole information is provided in the full table of exploration assay results, including hole co-ordinates, RL, dip, azimuth, downhole length and interception depths. Where this table relates to Mineral Resource, Ore Reserve or other disclosures, this section is not material. Notes relating to the drill hole information relevant to the Mineral Resource estimate are noted in Section 1 - Sampling Techniques and Data. Notes relating to the geology and interpretation are noted in Section 3 - Estimating and Reporting of Mineral Resources.
Data aggregation methods	<ul style="list-style-type: none"> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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. 	<ul style="list-style-type: none"> All of the reported intersections and/or Mineral Resource have a lower cut-off of 0.5g/t, with a maximum internal dilution of two consecutive samples (intersections only). No metal equivalents were used.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> 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 (e.g. 'down hole length, true width not known'). 	<ul style="list-style-type: none"> No exploration results have been reported in this release, and thus, this section is not material to this report on Mineral Resources and Ore Reserves.
Diagrams	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Where this table relates to exploration results, drill hole plans and sections are included in the body of the text.
Balanced reporting	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Where this table relates to exploration results, all the results of the reported programme are presented in the detailed intersections table.
Other substantive exploration data	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No exploration results have been reported in this release, and thus, this section is not material to this report on Mineral Resources and Ore Reserves.
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (e.g. 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. 	<ul style="list-style-type: none"> No exploration results have been reported in this release, and thus, this section is not material to this report on Mineral Resources and Ore Reserves.

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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Data used for estimation is stored within an SQL database and is managed using DataShed Software Logging is performed on LogChief and synchronised to the database A database audit was run to compare drillhole collar locations to check survey locations and topographic survey Holes for the mineral resource are checked visually and suspect information are sent to the Database Administrator to correct if necessary
Site visits	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> For all resources carried out by Millennium Minerals Ltd, the Competent Person has carried out a comprehensive site visit ensuring industry standards of the Mineral Resource estimation process, from sampling through to final block model. For all resources carried out by CSA Global, the Competent Person has carried out a comprehensive site visit ensuring industry standards of the Mineral Resource estimation process, from sampling through to final block model For all resources carried out by Dampier Consulting, the Competent Person has not carried out a site visit due to the amount of historic data from completed open cut mining.
Geological interpretation	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Detailed outcrop and structural mapping have been completed for most of the deposits. Outcrop at the Project deposits ranges from excellent (100% outcrop) to very good. Geological interpretations are based on the mapping and structural measurements, sectional interpretations based on RC and core holes geology. Confidence in the geological interpretation of all resources is high due to the geological knowledge obtained due to either the advanced mining of the pit or infill drilling at either a grade control stage (10 x 10m grid) or resource drilling stage (20 x 20m grid) The interpretation was based on a 0.5 Au ppm cut-off grade, which coincided with a natural grade population break and knowledge that the deposits consist of narrow high-grade quartz reefs which contain hard boundaries. Alternate interpretations would consist of using a lower Au cut-off which would expand the width of the mineralisation having the effect of increasing tonnes and lowering grade of the deposit. A 30% error in mining reconciliation from previous resources which used this interpretation suggests that this model is incorrect. The influence of structure on the geological interpretation is well understood, with a structural model being incorporated within the interpretation process. Weathering surfaces were interpreted from drill logging and extended laterally beyond the limits of the Mineral Resource model.
Dimensions	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> ABC Reef -The north-west trending, moderately north-east dipping main lode at ABC Reef has been defined over 200m with a nominal plan width of 12 metres. Mineralisation has been tested to 130m below the surface. Agate – Several stacked lodes striking over 300 metres trend North-north-east. Lodes dip to the north-west and are modelled 100 metres below the surface. All Nations -The deposit has an overall north-south trend and has been drilled over some 750m of strike length. The northern ~130m of the deposit comprises a southerly plunging open antiformal lode feature that appears to be separated from the main lode to the south by a regional fault. The main lode is a north-south trending, steeply west dipping feature with a plan width of 20 metres, and a strike length in excess of ~600m. A secondary mineralised trend is observed in the centre and the south of the deposit, and is represented by two distinct moderately shallow, south to SSE dipping mineralised structures. These secondary mineralised structures have a plan width up to 8-10m wide and have been drill tested over an ~130m strike extent. Drilling at All Nations has tested mineralisation to a maximum depth of 140m below the surface Angela – Several stacked lodes with an overall North-East trend strike over a distance of 350 metres and dip around 65 degrees to the north. Mineralisation extends to a depth of 100 metres below the surface. Anne de Vidia – Two multiple zones of mineralisation strike east-north-east and dip steeply to the north-north-west and north-north-east and occur over a strike length of approximately 545 metres. The deposit has been tested to a depth of approximately 100 metres Au81 -Mineralisation strikes north-south, dips 70 to 80 degrees to the west and extends for 240m with an average plan thickness of eight metres. There are multiple low grade, north-north-east striking, steeply west dipping lenses that have been defined over 400m with an average thickness of three metres. The mineralisation has been well defined to 40m below the surface and sparsely to 100m. Bartons –the deposit comprises a series of sub-parallel stacked lodes trending north-north-east and dipping steeply to the north-east. The main lode is mineralised over a strike length of 1300m; the mineralisation plan widths are 14m and 12m respectively. Mineralisation has been defined to 130m below the surface. The deposit remains open at depth. Bow Bells – Initially included within the Round Hill interpretation, this has now been separated. Two different trends of mineralisation containing multiple lodes trend almost east-west and north-west. This covers a strike of 350 metres and continue to a depth of 85 metres below the surface. Condor -Mineralisation is made up of four lodes that strike for 250m. The deposit trends north-west and dips

Criteria	JORC Code Explanation	Commentary
		<p>steeply to the north-east, with an average plan width of six metres. Drilling has defined the mineralisation to a depth of at least 85m below the surface; mineralisation remains open along strike north-west.</p> <ul style="list-style-type: none"> • Condor North-West – Multiple lodes that strike for around 135 metres trending north-west, dipping steeply to the north east. Mineralisation extends to a depth of 85 metres. • Crow -Two parallel lodes have been defined at Crow; these both trend north-west, dip steeply to the north-east and are 60m apart. The main lode has been defined over 180m; the footwall lode is mineralised over 140m. Plan widths for the mineralisation are four and two metres respectively. The mineralisation has been tested to a maximum depth of 65m below the surface and main lode remains open along strike to the south-east. • Crossing –Multiple stacked lodes with a bearing of ~010 dipping 75 degrees to the west are present and appear to be correlated with sub-cropping quartz veins. The deposit has a strike length over 350m and is drilled to a depth of 100 metres. • D Reef -Mineralisation at D Reef is comprised of two lodes with nominal plan widths for the main and smaller lode of five and two metres respectively. The main lode strikes for 220m in a north-east direction, dips steeply to the north-west; the sub-vertical smaller lode strikes broadly east-west for about 80m. The maximum depth of drill testing of these lodes is to 110m below the surface. Mineralisation remains open along strike to the east and west of the smaller lode. • Falcon -The deposit is comprised of four lodes trending north-east and are sub-vertical to very steeply south-east dipping. Mineralisation has a length of 260m and a nominal plan width of three metres. This deposit has been defined to 75 metres below the surface. The resource remains open along strike to the south-west. • Gambols Hill – Multiple stacked lodes trend over a distance of 860 metres in a north-east direction steeply dipping to the west. The deposit has been drilled to a depth of approximately 100 metres. • Golden Eagle -The main lode trends north-east, dips moderately to the north-west with a strike length of 1,900m and plan thickness 18m. The hanging wall lodes strike east-north-east, dip moderately to shallowly to the north with a plan width of five metres and vary in extent from 40m to 240m. Footwall lodes extend over similar strike lengths to the hanging wall lodes but trend slightly more northerly than the main lode. The mineralisation has been defined to a depth of 230m below the surface. • G Reef -Two parallel, north-east trending and steeply north-west dipping lodes comprise the mineral resource at G Reef. The thicker lode has a plan width of three metres and a strike length of 70m, whilst the narrower one has a width of two metres and a strike length of about 40m. Mineralisation has been tested to 85m below the surface. • Harrier -The deposit trends north-west, dips steeply to the north-east and has a strike length of 190m. Plan width of mineralisation is approximately eight metres and mineralisation has been drill tested to 80m below the surface. • Hopetoun-Endeavour – is a broadly NE-striking, +2.25km mineralised fault/shear corridor. It is a steeply SE-dipping mineralised shear that outcrops in the order of 3-5 metres in thickness. • Hut – Nine parallel, north-east trending and moderately dipping lodes over a strike length of 200m, with mineralisation tested to a depth of 100m. • Junction -Mineralisation is comprised of several lodes that form continuous mineralisation over a strike length of 180m. The lodes trend east-south-east and dip steeply to the south, it has been drill tested to 80m below the surface. Mineralisation remains open to the west-north-west. • Little Wonder -The main mineralised trend is arcuate ranging from east-west in the west, to east-south-east at the east. The mineralisation dips steeply to the south and varies in plan width from four to twelve metres. Mineralisation has been tested to a depth of 100m below the surface. • Majuba Hill - Eight parallel, north-east trending and westerly steeply dipping lodes over a strike length of 500m, with mineralisation tested to a depth of 60m. • Mundalla – contains a north-west and north-east trending zone. These individual zones have a strike length of around 300 metres. Mineralisation extends to a depth of around 100 metres. • Mustang – A north east trending lode with ancillary lodes. Having a plan width of around 5 metres, the deposit dips to the south. Mineralisation extends to depth of 55 metres. • Otways -The main lode at Otways trends east-north-east and dips steeply to the south, over a strike length of 950m. Drilling has defined mineralisation down to a depth of 100m below the surface. The mineralisation has a nominal plan width of 20m and it remains open along strike to the east-north-east. • Roscoes Reward -The deposit has a north-west trending, steeply south-west dipping geometry that is discontinuously mineralised over a strike length of 850m and trends to east-striking lodes at either end. Mineralisation has a nominal plan width of eight metres and has been tested to a depth of 95 metres below the surface. • Round Hill -there are two main orientations to the lodes. The first is a north-west trending, steeply south-west dipping vein system that is defined over 120m of strike and the second is comprised of three east-west en echelon veins that are continuous for 40m of strike. The mineralisation has been tested to 75m below surface • Shearers -The deposit trends north-south, dips steeply to the west and extends over a strike length of 750m with an average plan width of 12m, to a depth of 110m below the surface.

Criteria	JORC Code Explanation	Commentary
Estimation and modelling techniques	<ul style="list-style-type: none"> The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about correlation between variables. Description of how the geological interpretation was used to control the resource estimates. Discussion of basis for using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available. 	<ul style="list-style-type: none"> Ordinary Kriging (OK) was used to estimate 3D blocks for Agate, Anne de Vidia, Angela, All Nations, Bartons, Bow Bells, Crossing, Condor North-West, Crow, Gambols Hill, G Reef, Hopetoun-Endeavour, Hut, Junction, Little Wonder, Mundalla, Mustang, Otways, Roscoes Reward, Round Hill and Shearers using Surpac and Quantitative Kriging Neighbourhood Analysis to optimise parameters for the Kriging search strategies within Supervisor by Millennium Minerals Ltd. Ordinary Kriging (OK) was used to estimate 3D blocks for ABC-Harrier, Condor, D Reef and Falcon using Surpac and Quantitative Kriging Neighbourhood Analysis to optimise parameters for the Kriging search strategies within Supervisor by Dampier Consulting. The Golden Eagle deposit and AU81 were estimated using Ordinary Kriging by CSA Global using Micromine, Isatis and Datamine The resources completed by Millennium Minerals and Dampier Consulting were interpreted and wireframes were generated based on a 10 x 10m and a 20m x 20m exploration, resource and grade control drilling pattern. For the CSA estimated resources, the interpretation and wireframes were generated based on a 10x10m grade control and 20 x 20m resource drill patterns. Grade estimation was constrained to within the geological model domain wireframes: Lithological, structural and grade interpretation was used as a guide in building mineralised domains. All samples are 1m composites. Block models were created for all the Millennium Minerals Estimations using the following block sizes: Agate using 5.0mE x 5.0mE x 2.5mRL parents blocks, Angela using 5.0mE x 5.0mE x 2.5mRL parents blocks, All Nations using 3.0mE x 3.0mN x 2.5mRL parent blocks, Anne de Vidia using 5.0mE x 5.0mN x 2.5mRL parent blocks, Bartons using 3.0mE x 3.0mN x 2.5mRL parent blocks, Bow Bells using 5.0mE x 5.0mE x 2.5mRL parents blocks, Condor N-W using 5.0mE x 5.0mE x 2.5mRL parents blocks, Crossing using 4.0mE x 5.0mN x 2.5mRL parent blocks, Crow using 3.0mE x 3.0mN x 2.5mRL parent blocks, Gambols Hill using 2.5.0mE x 2.5.0mN x 2.5mRL parent blocks, G Reef using 2.0mE x 5.0mN x 2.5mRL parent blocks, Hut using 5.0mE x 4.0mN x 2.5mRL parent blocks, Junction using 2.0mE x 2.0mN x 2.5mRL parent blocks, Hopetoun-Endeavour using 5.0mE x 5.0mE x 2.5mRL parents blocks, Little Wonder using 3.0mE x 3.0mN x 2.5mRL parent blocks, Majuba Hill using 5.0mE x 5.0mN x 2.5mRL parent blocks, Majuba using 5.0mE x 5.0mE x 2.5mRL parents blocks, Mundalla using 5.0mE x 5.0mE x 2.5mRL parents blocks, Mustang using 5.0mE x 5.0mE x 2.5mRL parents blocks, Otways using 3.0mE x 3.0mN x 2.5mRL parent blocks, Roscoes Reward using 4.0mE x 4.0mN x 2.5mRL parent blocks, Round Hill using 4.0mE x 4.0mN x 2.5mRL parent blocks and Shearers using 3.0mE x 3.0mN x 2.5mRL parent blocks . The models were then sub-celled as appropriate to honour wireframe lodes. Block models were created for all the Dampier Consulting Estimations were carried out using a 5.0mE x 5.0mN x 2.5mRL parent blocks and sub-celled down 1.25mE x 1.25mN x 1.25mRL as appropriate to honour wireframe lodes. For the CSA estimated resources, block models were created using 10.0mE x 10.0mN x 5.0mRL parent blocks. Sub-cells were generated down to 1.0mE x 1.0mN x 0.5mRL (0.5m x 0.5m x 0.1m for G Reef and 0.5m x 0.5m x 1.0m for Au81) as appropriate to honour wireframe lodes and regolith interpretations during model construction. For all Millennium Minerals Estimations, the following minimum and maximum samples were used to estimate the sample grades into each block for the first search pass: Agate a minimum of 9 and a maximum of 28, All Nations a minimum of 12 and a maximum of 31, Angela a minimum of 8 and a maximum of 26, Anne De Vidia a minimum of 10 and a maximum of 31, Bartons a minimum of 12 and a maximum of 31, Bow Bells a minimum of 9 and a maximum of 29, Crossing a minimum of 10 and a maximum of 30, Condor NW a minimum of 4 and a maximum of 20, Crow a minimum of 8 and a maximum of 24, Gambols Hill a minimum of 10 and a maximum of 31, G Reef a minimum of 12 and a maximum of 31, Hopetoun-Endeavour a minimum of 9 and a maximum of 28, Hut a minimum of 10 and a maximum of 30, Junction a minimum of 12 and a maximum of 30, Little Wonder a minimum of 9 and a maximum of 31, Majuba Hill a minimum of 12 and a maximum of 31, Mundalla a minimum of 8 and a maximum of 27, Mustang a minimum of 4 and a maximum of 25, Otways a minimum of 14 and a maximum of 28, Roscoes Reward a minimum of 10 and a maximum of 25, Round Hill a minimum of 11 and a maximum of 31 and Shearers a minimum of 12 and a maximum of 31. The minimum number of samples was reduced in the second and third search pass to ensure all blocks found sufficient samples to be estimated. For all Dampier Consulting estimations, a minimum of 8 samples and a maximum of 24 samples were used to estimate the sample grades into each block for pass 1 and 2. The minimum number of samples was reduced to 4 zones in the third search pass to ensure all blocks found sufficient samples to be estimated. For CSA estimated models, a minimum of 8 samples and a maximum of 24 samples were used to estimate the sample grades into each block for the first search pass. The minimum number of samples was reduced to 4 for the smaller zones in the third search pass to ensure all blocks found sufficient samples to be estimated. All search ellipses were orientated based on the overall geometry of mineralisation of domains. There is the availability of check estimates, previous estimates and/or mine production records and all Mineral Resource estimate takes appropriate account of such data.

Criteria	JORC Code Explanation	Commentary
		<ul style="list-style-type: none"> • There is no by-product. • No estimation was made for deleterious elements or other non-grade variables. • Top cuts applied are: • ABC Reef-Harrier=22.25, 20.37 and 13.25, Agate=10, All Nations=10 and 15, Angela=10, Anne de Vidia=12, Au81=5 ranging to 20, Bartons=10 to 15, Bow Bells=12, Condor=8 and 15, Condor NW=5, 8 and 15, Crossing=5.7, Crow=15, D Reef=26.5, Falcon=20, Golden Eagle=3 ranging to 65, Golden Gate G Reef=21.5, Hopetoun-Endeavour=9, Hut=5.7, Junction=15, Majuba Hill=9.68 ranging to 14, Little Wonder=14 ranging to 22, Mundalla=9, Mustang=15, Otways=9.5, Roscoes Reward=10, Round Hill=22 and Shearers=14 • The assumption behind modelling of selective mining units is 5m x 5m x 5mRL. • Only gold was estimated as a single variable. • Statistical and visual assessment of the block model was undertaken to assess the successful application of the various estimation passes, to ensure that as far as the data allowed, all blocks within domains were estimated and the model estimates were considered acceptable. • Validation of the estimate was completed by visual inspection in 3D. Checks included that; all blocks were populated, block grades matched composite grades and there was no leakage of grade into adjacent areas.
Moisture	<ul style="list-style-type: none"> • Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. 	<ul style="list-style-type: none"> • The tonnages were estimated on a dry basis
Cut-off parameters	<ul style="list-style-type: none"> • The basis of the adopted cut-off grade(s) or quality parameters applied. 	<ul style="list-style-type: none"> • For the CSA estimated deposits, the Mineral Resource was not constrained by the economic cut-off grades. The nominal 0.25g/t Au boundary applied to the mineralisation zone was based on analysis of the sample population and local geology. • For the Millennium and Dampier Consulting estimated deposits, a nominal 0.5g/t Au boundary was applied to the mineralisation based on the current mining observations of narrow, high-grade veins and a lack of reconciliation using the 0.25g/t Au mineralised zones. • Estimates were quoted at 0.5 g/t Au as the base case cut-off, based on experience at the Company operating gold deposits.
Mining factors or assumptions	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • It was assumed that the deposits will be mined mechanically via open pit methods, using 5 m high benches, with the potential for 2.5 m flitches. No dilution or cost factors have been applied to the estimate.
Metallurgical factors or assumptions	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Metallurgical test work has been completed at all the deposits; recoveries are considered acceptable. Assumptions are based on treatment at Millenniums' operational CIL gold processing facility.
Environmental factors or assumptions	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Environmental surveys continue across the Nullagine Gold Project, including flora and fauna surveys and surface water assessments required for ongoing approvals to be submitted across a number of new and existing areas including Round Hill, Bow Bells, Mujuba, Crossing, Agate and Hut resource targets. These assessments will compliment previous survey works and studies already completed across the project to provide regional assessment for the Nullagine Gold Project. Heritage surveys continue across the project with areas targeted for exploration operations proposed through 2017 to provide security of tenure for ongoing operations and security for the protection of heritage values in the area.
Bulk density	<ul style="list-style-type: none"> • 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 of 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. 	<ul style="list-style-type: none"> • Specific gravity measurements were taken from drill core and were grouped into oxidation domains defined in the geological model; mean values were used as a dry bulk density factor on this basis. • SG's determined using industry standard method of dried/sealed weight of core sample in water versus the dry weight in air. The Anne de Vidia, Majuba, Hut, Otways, Round Hill and Shearers were calculated using the calliper method. • Full HQ (80%) and PQ core (20%) measured at a rate of 2-3/m of core; the current dataset consists of over 3,700 measurements; these are classified by both oxidation state and lithology. • Blocks were assigned densities using weathering classification (oxide, transition or fresh). • For deposits Crossing and Majuba Hill, specific gravity measurements were calculated by helium purge pycnometer of RC chips by ALS Metallurgy. • For deposits Agate, Angela, Condor NW, Hopetoun-Endeavour, Mustang and Mundalla, specific gravity measurements were estimated by using the data from the nearest deposit and taking a conservative approach.

Criteria	JORC Code Explanation	Commentary
Classification	<ul style="list-style-type: none"> The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (i.e. 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. 	<ul style="list-style-type: none"> Mineral Resources have been classified on the basis of geological and grade continuity confidence, geological domaining, estimation quality parameters, drill spacing and reflect the Competent Person's view on the deposit. The appropriate account has been taken of all relevant factors i.e. relative confidence in tonnage/grade computations, confidence in the continuity of geology and metal values, quantity, quality, and distribution of the data. For the CSA based resources, the classification process was based on an interpolation distance and minimum samples within the search ellipse as defined by the Micromine macro. The main components of the macro are summarised as follows: <ul style="list-style-type: none"> Initial classification: <ul style="list-style-type: none"> The Mineral Resource was classed as Inferred if the average weighted sample distance was greater than 50 m. The Mineral Resource was classed as Indicated if the average weighted sample distance was between 25 m and 50 m. The Mineral Resource was classed as Measured if the average weighted sample distance was less than 25 m. Numbers of drill holes -< 2- Measured and indicated resources downgraded one class. The initial classification was reviewed visually. Based on the initial classification, three solids rescat_meas, rescat_ind and rescat_inf were created to define Measured, Indicated and Inferred resources. This defined resource categories based on a combination of data density and geological confidence. The resource classification codes in the model are as follows: Measured Resource (class = 1) Indicated Resource (class = 2) Inferred Resource (class = 3) Unclassified Resource (class = 4) For the Millennium based resources, the classification process was based mainly on the slope of regression (SoR) value and the interpolation distance <ul style="list-style-type: none"> The mineral resource was classified as Inferred were the SoR is between 0.4 and 0.5. The average distance to informing data within the inferred was greater than 50m The mineral resource was classified as Indicated were the SoR is consistently greater than 0.5 and the average distance to informing data is 20 to 30 metres and covers all the 20x20m drilled areas. The mineral resource was classified as measured were the SoR is consistently greater than 0.7 and encompasses all the 10m x 10m drilled areas. For the resources estimated by Dampier Consulting, resource classification was based upon confidence in the geological interpretation, the geostatistical continuity of the gold grade, and the density of informing drillholes. <ul style="list-style-type: none"> Blocks in areas with high geological confidence, immediately below the pit surface that was informed by samples within a distance less than two-thirds of the range of the variogram, filled in the first-pass estimation, were classified as Measured Blocks in areas of high geological confidence that were informed by samples within the full range of the variogram, filled in the first pass of estimation, were classified as Indicated Blocks in other areas of the mineralisation wire-frame informed by more than one drillhole were classified as Inferred Blocks in areas where there was only a single drillhole supporting the mineralised wire-frame were left unclassified.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of Mineral Resource estimates. 	<ul style="list-style-type: none"> The estimates completed by independent consultants CSA Global estimates were peer reviewed internally before release. The process for geological modelling, estimation and reporting of Mineral Resources is the industry standard and has been subject to an independent external review. CSA Global undertook a review during 5th - 7th January 2014 and found the process to be industry standard with minor recommendations as part of continuous improvement. The estimates completed by Millennium were peer reviewed externally before release by Andrew Paterson of Dampier Consulting.
Discussion of relative accuracy/confidence	<ul style="list-style-type: none"> Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, 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. 	<ul style="list-style-type: none"> The current Mineral Resource models provide robust global estimates of the in situ Au mineralisation in the deposits. No formal confidence intervals have been derived by geostatistical or other means; however, the use of quantitative measures of estimation quality such as the Kriging efficiency and the slope of regression allow the Competent Person to be assured that appropriate levels of precision have been attained within the relevant resource confidence categories With respect to Mineral Resources estimated at the deposits, the geological interpretation for geology, weathering and mineralisation domains are adequate for the estimation of Measured, Indicated and Inferred Mineral Resources. Mining of many of the deposits and project to date reconciliation with the resource estimate provides a further degree of assurance in the estimates results. A 2013 comparison of mining-depleted Ore Reserve at Golden Eagle with the Base-Case Financial Model Ore Reserve reconciled to within 500 ounces of gold; this is considered good agreement.

Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code Explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	<ul style="list-style-type: none"> Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves. 	<ul style="list-style-type: none"> Two of the Mineral Resources (Roscoes Reward and Gambols Hill) of the Nullagine Gold Project were updated by Millennium Minerals Ltd as further exploration drilling results were available. Maiden resources were calculated for Angela, Agate Mundalla, Mustang, Condor NW, Hopetoun-Endeavour and Bow Bells. All of the updated and new Mineral Resources are used for conversion to Ore Reserves. Mining depletion was applied to the estimates (Shearers, Otways, Junction, Little Wonder and Golden Eagle) A technical description of the Mineral Resource is presented in the preceding sections to this table. The Mineral Resource are reported as wholly inclusive of the Ore Reserves
Site visits	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> The Competent Person for this Ore Reserves Statement is a full time employee of Millennium Minerals Ltd and visits the site on a regular basis.
Study status	<ul style="list-style-type: none"> The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. 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. 	<ul style="list-style-type: none"> The Nullagine Gold Project is currently in production, and such an operational mine plan exists. Thus, where available, actual operational costs, values and parameters have been utilised for Modifying Factors as part of this updated Ore Reserve, else existing Modifying Factors from the recent updated Feasibility study have been applied. Actual operating costs and modifying factors have been applied in the pit optimisation and Ore Reserve estimates. End of month survey pickups as on December 2016 has been used to deplete material already mined from in-situ material. No Inferred Mineral Resource is included in any of the updated Ore Reserves estimates.
Cut-off parameters	<ul style="list-style-type: none"> The basis of the cut-off grade(s) or quality parameters applied. 	<ul style="list-style-type: none"> Economic cut-off grades are calculated for all the deposits. Due to varying ore haulage transit costs (deposit-to-mill) and weathering factors (varying the mill recoveries), multiple economic cut-offs exist. These cut offs are displayed, per weathering zone, in the tables below:

	Oxide (g/t)	Transition (g/t)	Fresh (g/t)
Golden Eagle	0.71	0.71	0.91
All Nations	0.62	0.62	0.89
Shearers	0.58	0.58	0.71
Otways	0.55	0.55	0.72
Little Wonder (MML) ¹	0.63	0.64	0.87
Little Wonder (RSI) ¹	0.64	0.65	0.88
Roscoes Reward	0.63	0.63	0.80
Junction	0.63	0.63	0.80
Anne de Vidia	0.57	0.57	0.71
Round Hill	0.67	0.67	0.82
Crossing	0.54	0.54	0.73
Gambols Hill	0.60	0.60	0.74
Majuba Hill	0.55	0.55	0.64
Hut	0.56	0.56	0.70
Mundalla	0.63	0.63	0.70
Angela	0.55	0.55	0.80
Hopetoun-Endeavour	0.65	0.65	0.75
Bow Bells	0.70	0.70	0.85

Criteria	JORC Code Explanation	Commentary			
		Agate	0.56	0.56	0.70
		Mustang	0.70	0.70	1.36
		Condor NW	0.70	0.70	0.85
		<ul style="list-style-type: none"> Note that Roscoes Reward and Junction and a portion of Little Wonder attract a 1.5% royalty that is part of an agreement made with MOY's former joint venture partner, Royalty Stream Investments (RSI). 			
Mining factors or assumptions	<ul style="list-style-type: none"> 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). 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. The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc), grade control and pre-production drilling. The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate). The mining dilution factors used. The mining recovery factors used. Any minimum mining widths used. The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion. The infrastructure requirements of the selected mining methods. 	<ul style="list-style-type: none"> The method used to convert Mineral Resources to Ore Reserves is based upon pit optimisation to identify the economic shell within which a design process is completed to achieve a practical mine design. As the Nullagine Gold Project is currently in production, any mining factors applied as part of this updated Ore Reserve are based on actual data sourced from the project. The mining method is conventional drill and blast and load and haul with an excavator and large open pit mining equipment. A combination of a 90 tonne rigid truck fleet and 40 tonne articulated fleet are currently being used at the Nullagine Project to mine the varying Ore Reserves. The geotechnical parameters are based on the recommendations from a geotechnical study by independent consultants with 15m to 20m batter heights, 55^o - 70^o batter angles and 5m to 10m wide berms. The geotechnical consultant has an ongoing involvement with the project and recommendations made reflect operational reviews following site visits over the course of the project. Mining loss factor of 5% is applied in the pit optimisation and Ore Reserve estimation process. A mining dilution factor of 10% is applied in the pit optimisation and Ore Reserve estimation process. No Inferred Mineral Resource are included in the Ore Reserves estimation process A 25m mining width is applied on all benches except good-bye cuts A 7% to 9% - gradient and 9m to 14m width (including safety windrow) are used for in-pit ramp. Any infrastructure required has already been established on the Nullagine gold project 			
Metallurgical factors or assumptions	<ul style="list-style-type: none"> The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. Whether the metallurgical process is well-tested technology or novel in nature. The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied. Any assumptions or allowances made for deleterious elements. 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. For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications? 	<ul style="list-style-type: none"> The existing Nullagine Processing facility will be utilised for processing the Ore The Nullagine processing plant is currently in operation and has been since 2012. It is an industry standard 1.5 Mt pa primary crusher, SAG mill, gravity circuit and carbon-in-leach tankage facility. This is conventional, well-tested technology, and is appropriate for the lode style of mineralisation in all the Project deposits, as demonstrated by successful plant operation since commercial production was declared in February 2013. Recovery factors of 70% to 95% (varies between deposits) have been assumed in the estimation of the Ore Reserves. The recovery factors are based on comprehensive test work on metallurgical core holes, mini BLEG and Leachwell analyses on RC samples. The Ore Reserves are quoted 'delivered to mill' basis; this excludes metallurgical recovery factors. No allowance was made for deleterious elements as none of concern were noted in work to date. 			
Environmental	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> As the Nullagine Gold Project is currently in operation and as such the appropriate Environmental Management Plans (EMP) have been submitted and approved by the Department of Mines. The EMP will be reviewed on a continuous basis. Environment studies and impacts are ongoing for Round Hill, Majuba Hill, Crossing, Hut, Mundalla, Mustang, Hopetoun-Endeavour, Bow Bells, Agate and Condor NW, to date flora and vegetation surveys have been completed. All environmental approvals for Round Hill, Majuba Hill, Crossing, Hut, Mundalla, Angela, Agate, Mustang, Hopetoun-Endeavour, Bow Bells and Condor NW are expected to be awarded in line with the mining plan. Waste Rock Dump designs take into consideration any Potential Acid Forming Material (PAF) and are design to meet the license requirements. Designs take into consideration stability and erosion measures and will be rehabilitated as per the license requirements. Hydrology studies completed for both surface and ground water flows, with no significant considerations for the proposed mining operations. 			
Infrastructure	<ul style="list-style-type: none"> The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation 	<ul style="list-style-type: none"> The appropriate infrastructure is currently in place as this is an operating mine. 			

Criteria	JORC Code Explanation	Commentary								
	(particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.									
Costs	<ul style="list-style-type: none"> The derivation of, or assumptions made, regarding projected capital costs in the study. The methodology used to estimate operating costs. Allowances made for the content of deleterious elements. The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co-products. The source of exchange rates used in the study. Derivation of transportation charges. The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. The allowances made for royalties payable, both Government and private. 	<ul style="list-style-type: none"> No capital costs were considered in this study as these expenditures have already been made. The Nullagine Gold Project is currently in production. The mining and processing costs applied in the pit optimisation are based on actual operational costs. All costs are in Australian Dollars so no direct exchange rate has been applied. The additional cost of hauling the ore material from each mining site to the existing processing plant is included and appropriately adjusted, to provide final tailored processing costs per satellite site. Allowances were made for government royalties, native titles and refining charges. <table border="1" data-bbox="1172 520 1810 667"> <tr> <td>WA State Government Royalty</td> <td>2.5%</td> </tr> <tr> <td>Native Title</td> <td>1%</td> </tr> <tr> <td>RSI Royalty</td> <td>1.5%</td> </tr> <tr> <td>Third party royalty</td> <td>A\$10/Oz</td> </tr> </table> <ul style="list-style-type: none"> Note that Roscoes Reward and Junction and a portion of Little Wonder attract a 1.5% royalty that is part of an agreement made with MOY's former joint venture partner, Royalty Stream Investments (RSI). 	WA State Government Royalty	2.5%	Native Title	1%	RSI Royalty	1.5%	Third party royalty	A\$10/Oz
WA State Government Royalty	2.5%									
Native Title	1%									
RSI Royalty	1.5%									
Third party royalty	A\$10/Oz									
Revenue factors	<ul style="list-style-type: none"> 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. The derivations of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products. 	<ul style="list-style-type: none"> A gold price of A\$1600/oz has been used in the pit optimisation for Ore Reserve estimates and for reporting cut-off grades. Appropriate allowances were made for government royalties, native titles and refining charges. 								
Market assessment	<ul style="list-style-type: none"> The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. A customer and competitor analysis along with the identification of likely market windows for the product. Price and volume forecasts and the basis for these forecasts. For industrial minerals, the customer specification, testing and acceptance requirements prior to a supply contract. 	<ul style="list-style-type: none"> Production from the Nullagine Gold project is sold as a mixture of spot and hedges gold sales. 								
Economic	<ul style="list-style-type: none"> 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. NPV ranges and sensitivity to variations in the significant assumptions and inputs. 	<ul style="list-style-type: none"> The Ore Reserves have been evaluated through the standard financial model. All operating and capital costs have been included in the financial model. The process has demonstrated that Ore Reserves have a positive NPV. 								
Social	<ul style="list-style-type: none"> The status of agreements with key stakeholders and matters leading to a social licence to operate. 	<ul style="list-style-type: none"> All key stakeholder agreements, including Native title and Pastoral Lease holder agreements, are in place. The Company has close working relationships with communities surrounding the Project. 								
Other	<ul style="list-style-type: none"> To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: 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 	<ul style="list-style-type: none"> The Nullagine Gold Project is currently in operation. Therefore, much of the standard pre-operational estimates and unknowns that can be associated with Pre-Feasibility or Feasibility studies have little or no application to this updated Ore Reserve. There are no known significant naturally occurring risks to the project. Full government statutory approvals have been received for Shearers, Otways, Junction, All Nations, Little Wonder, Roscoe Reward, Gambols Hill, Anne de Vidia and Golden Eagle. The mining approvals process for the remaining deposits (Majuba Hill, Round Hill, Bow Bells, Mundalla, Mustang, Agate, Angela, Hopetoun-Endeavour, Crossing and Hut have commenced and are expected to be received within the timeframes anticipated in the Life of mine plan. All current deposits are located on granted Mining Leases. 								

Criteria	JORC Code Explanation	Commentary
	a third party on which extraction of the reserve is contingent.	
Classification	<ul style="list-style-type: none"> The basis for the classification of the Ore Reserves into varying confidence categories. Whether the result appropriately reflects the Competent Person's view of the deposit. The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any). 	<ul style="list-style-type: none"> All Proved and Probable Ore Reserves have been derived from Measured and Indicated Mineral Resources respectively. No Measured Mineral Resources were downgraded to Probable Ore Reserves. The estimated Ore Reserves are, in the opinion of the Competent Person, appropriate for this style of deposit.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of Ore Reserve estimates. 	<ul style="list-style-type: none"> An internal audit of the Ore Reserve estimate has been carried out.
Discussion of relative accuracy/confidence	<ul style="list-style-type: none"> 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. 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. 	<ul style="list-style-type: none"> The Nullagine Gold Project is currently in production and therefore actual operational costs, values and parameters have been utilised. The Mineral Resource and Ore Reserves are considered to be an extension of current operations The accuracy of the estimates will be subject to regular reconciliation and ongoing monitoring.