

13 November 2013



Manager Company Announcements  
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Australian Securities Exchange Limited  
Level 4, 20 Bridge Street  
SYDNEY NSW 2000

MILLENNIUM

MINERALS LIMITED

ABN 85 003 257 556

*Via Electronic Lodgement*

Dear Sir/Madam

### ***Nullagine Gold Project***

### ***Mineral Resources increase by 44% to 1,913,000 ounces gold***

Millennium Minerals Limited ("Millennium" or the "Company") is pleased to present the 2013 update of its gold Mineral Resources for the Nullagine Gold Project ("The Project"). These Mineral Resources are all JORC Code<sup>1</sup> compliant.

#### **Highlights:**

- **A further 581,000 ounces of gold added to the total Project Mineral Resources from the All Nations, Golden Gate (ABCD Reef), Condor, Crow, G Reef, Beatons Creek, Camel Creek Joint Venture (CC JV) and Au81 deposits.** Table 1 lists the updated 2013 totals by Mineral Resource category, which includes mining depletion from the Golden Eagle deposit up to 31 December 2012\*.
- **The total Project Mineral Resource (Measured, Indicated and Inferred) now stands at 47.13 Mt grading at 1.26 g/t Au for 1,912,800 contained gold ounces; representing an increase of 6% in grade, 36% in tonnes and 44% in ounces over the previous declared totals.**

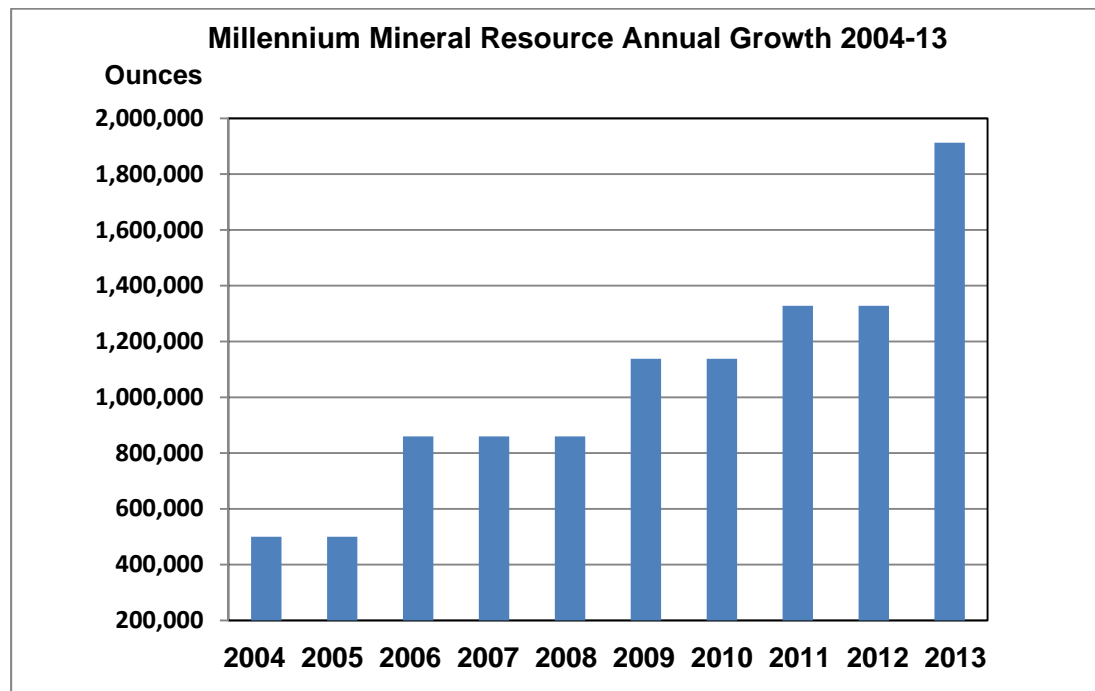
**Table 1. 2013 Total Mineral Resources by Resource Category**

Description	Million Tonnes	Grade g/t Au	Ounces
Measured	19.9	1.29	825,400
Indicated	9.85	1.14	359,500
<b>M + I</b>	<b>29.75</b>	<b>1.24</b>	<b>1,184,900</b>
Inferred	17.38	1.3	726,700
<b>Total</b>	<b>47.13</b>	<b>1.26</b>	<b>1,912,800</b>

- **The Company expects that additional Mineral Resource increases are likely at several existing deposits plus a number of new prospects with further planned drilling.**
- **A new Project Ore Reserve is being prepared and will be released this quarter.**  
\* Mining depletion to EOY 2013 will be estimated in December 2013.

<sup>1</sup> All references to the JORC Code in this announcement are in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the 'JORC Code') 2004 edition.

Figure 1. Year on year Mineral Resource performance



## Introduction

The Mineral Resource estimates have been updated for a number of the Company's deposits located within the Project in the East Pilbara District of Western Australia (Figures 2-5). The updates were completed after new data was gathered from approximately 19,900 metres of RC drilling during 2013, and in part during 2011. The drilling specifically targeted extensions to mineralisation outside the currently proposed pit design limits. The estimates also include the results from approximately 16,000 m of RC and 500 m of diamond drilling completed at Beatons Creek by Novo Resources Corporation in 2011-12 (Figure 5).

This 2013 update incorporates increased estimates for All Nations, Golden Gate (ABCD), Condor, Crow, G Reef, and the previously released estimates for the CC JV deposits of Roscoes Reward, Junction and Little Wonder. The initial JORC estimate for Au81 deposit, and the previously released Beatons Creek deposit estimate are also incorporated in the new total.

Mineral Resources were not updated for the remaining Project deposits, as the Company believes that there would be no material differences to previous estimates from new data. Note that no Mineral Resource update was provided in 2012, as apart from at Beatons Creek, only very limited drilling was carried out during that year. At that time, the Company's financial resources were predominantly directed to constructing and commissioning the Golden Eagle gold processing facility. Commercial production was declared in February 2013.

The new Mineral Resource estimates, along with the unchanged, previously released estimates for the rest of the deposits, are listed in detail in Table 2.

The key changes to the Mineral Resources Statement are:

1. Global Project Resource ounces have increased 44% (previously 1,331,100), and tonnes have increased 36% (previously 34.64 million tonnes). The increases are predominantly from inclusion of the new drilling data.
2. Overall grades have increased from 1.19 g/t Au to 1.26 g/t Au, a 6% gain. This is largely driven by the substantial tonnage of moderate grade ounces in the Beatons Creek estimate (see below), which was partly offset by lower grades at Crow, Condor and CC JV deposits (updated estimates for these deposits incorporated more lower grade mineralisation adjacent to the very high grade 'reefs').
3. An initial Beatons Creek estimate (released May 1, 2013 by Novo Resources Corporation). Novo Resources has the option to earn 70% in the gold rights at Beatons Creek by completing a Bankable Feasibility Study for the Beatons Creek deposit.
4. An updated Camel Creek JV Resource estimate (released May 24, 2012); the JV split is 50% Millennium, 50% Northwest Resources Limited.
5. An initial JORC Code estimate for the Au81 deposit. Au81 is a shallow, predominantly oxide deposit located approximately 2 km to the northeast from the gold processing facility (Figure 2). This is a new deposit and relatively immature in terms of exploration potential; the Company anticipates material upside in scale and Mineral Resource category with ongoing drilling.
6. Previously released mining depletion of 24,000 ounces up to 31 December 2012 at Golden Eagle. Depletion will be re-estimated for FY 2013 in December; and will include an estimate for Golden Gate (ABCD) as mining commenced at that deposit in August 2013.

The JORC reported Mineral Resource estimates were carried out by independent consultants, CSA Global Pty Ltd (CSA Global).

### **New Mineral Resource Estimates**

The **All Nations** deposit contains a Mineral Resource estimate of 2.23 Mt at 1.23 g/t Au using a 0.5 g/t gold cut-off grade for 88,000 ounces contained gold. The new estimate shows a 33% increase, or an additional 22,000 ounces over the previous estimate. These Mineral Resources are classified as Measured, Indicated and Inferred under the JORC Code.

The **Golden Gate (ABCD)** deposit contains a new Mineral Resource estimate of 0.95 Mt at 3.1 g/t Au using a 0.5 g/t gold cut-off grade for 95,000 ounces contained gold. The new estimate shows a 38% increase, or an additional 26,000 ounces over the previous estimate. These Mineral Resources are classified as Measured, Indicated and Inferred under the JORC Code.

The **Condor** deposit contains a new Mineral Resource estimate of 0.22 Mt at 2.8 g/t Au using a 0.5 g/t gold cut-off grade for 20,000 ounces contained gold. The new estimate shows a 67% increase, or an additional 8,000 ounces over the previous estimate. These Mineral Resources are classified as Measured, Indicated and Inferred under the JORC Code.

The **Crow** deposit contains a new Mineral Resource estimate of 0.12 Mt at 2.65 g/t Au using a 0.5 g/t gold cut-off grade for 10,500 ounces contained gold. The new estimate shows an 88% increase, or an additional 5,500 ounces over the previous estimate. These Mineral Resources are classified as Measured, Indicated and Inferred under the JORC Code.

The **G Reef** deposit contains a new Mineral Resource estimate of 0.05 Mt at 3.7 g/t Au using a 0.5 g/t gold cut-off grade for 6,200 ounces contained gold. The new estimate shows a 210% increase, or an additional 4,200 ounces over the previous estimate. Grade has increased 76% due to high grade intersections achieved in 2013. These Mineral Resources are classified as Indicated and Inferred under the JORC Code.

The **Au81** deposit contains an initial Mineral Resource estimate of 1.5 Mt at 1.0 g/t Au using a 0.5 g/t gold cut-off grade for 47,900 ounces contained gold. These Mineral Resources are classified as Inferred under the JORC Code.

The **CC JV** deposits are located approximately 22 km to the northeast of the gold processing facility and adjacent to the Company's All Nations and Little Wonder deposits (Figures 2 & 4). The updated Mineral Resource estimate was previously released on May 24, 2012; Millennium attributable ounces at the CC JV have increased to 52,500 ounces, and tonnes to 1.34 million. These Mineral Resources are classified as Measured, Indicated and Inferred under the JORC Code.

The **Beatons Creek** deposit is located approximately 10 kilometres to the northwest of the ore processing facilities (Figures 2 & 5). The initial Mineral Resource estimate of 421,000 ounces contained gold was previously released on May 1, 2013. These Mineral Resources are classified as Inferred under the JORC Code.

The Company is pleased to note that not only was overall total gold increased by 581,000 ounces, but that the ratio of the ounces reporting to the Measured and Indicated Resources categories is still 62%. This is despite the substantial additional amount of Inferred Mineral Resources at Beatons Creek. The updates provide yet another year of material growth of Mineral Resources (Figure 1); since 2004, Millennium's Mineral Resources have grown 283% or 1.4 million ounces.

The Company believes there is still good potential to increase the Mineral Resource inventories at many of the deposits drilled to date, particularly at Condor and Au81. It also believes that it can add significantly to the inventory via new identified prospects at Nullagine, with drilling already planned to test some of these prospects.

#### *Resource Modelling and Grade Estimation*

Independent industry consultants, CSA Global, completed the updated resource modelling for the seven deposits (Table 2), along with unchanged Mineral Resource estimates for the Barton, Shearers, Otways, Little Wonder, Golden Gate satellite deposits of Falcon, and Harrier.

The new Mineral Resources for All Nations, Little Wonder, Golden Gate (ABCD), Condor, Crow, G Reef, CC JV and Au81 deposits were completed using the Ordinary Kriging methodology for grade estimation, the method considered most suitable for this style of deposit. The results have been checked via internal validation methodologies. Detailed resource work has comprised:

- Resource modelling and wire framing;
- Variography and statistical analyses,
- Block modelling;
- Resource estimation; and
- Internal checks of block model parameters against drill assays.

With the inclusion of the new resource models, the updated global Mineral Resource estimate for all deposits at the Project is now 47.13 Mt at 1.26 g/t Au for 1.91 M ounces (Tables 1 & 2).

Importantly, a total of 29.75 Mt at 1.24 g/t Au for 1.18 M ounces of gold is contained within the Measured and Indicated Mineral Resource categories (Table 1).

Note that the average grades for the CC JV, Crow and Condor deposit estimates are materially lower than previous estimates due to the following factors:

- A much larger drilling database used compared to the previous dataset of a relatively small number of samples (combined ~3,500 new RC samples collected in 2013 for Crow & Condor);
- Better wire framing of mineralisation, incorporating lower grade mineralisation adjacent to the very high grade 'reef' zones; and
- Tighter search ellipse geometry (Crow).

Millennium believes the new estimates are an improvement upon previous estimates and thus better reflect the grade tenors that are likely to be achieved from the various deposits.

A key objective of the new estimates was to produce revised inputs for inclusion in new pit optimisation studies, and subsequently new Ore Reserve estimates for most of these deposits. These studies will be concluded during this quarter and will be reported once complete.

The All Nations, CC JV Golden Gate (ABCD), Condor, Crow, G Reef and Au81 deposits are hosted within broadly east-northeast trending, northwest dipping sequence of rhythmically interlayered sandstones, siltstones and shales of the Mosquito Creek Formation. Gold mineralisation is associated with a complex array of sub parallel, tabular quartz-carbonate veins and veinlets dipping between 60 degrees and vertical. The veins are variably discordant to the stratigraphy.

### **Mining Depletion**

The Golden Eagle Mineral Resources were re-estimated by CSA Global on 31 December 2012 to take into account mining depletion during the period since May 2012 (commencement of mining).

Depletion was calculated by reducing the Mineral Resource estimates by the volume of material contained between the current mining surface and the pre-mining surface digital terrain model (DTM) in the Resource block model. By applying the appropriate density and grade values to the depleted blocks, the tonnage and contained gold ounces of the mined material were estimated, and these were used to deplete the Mineral Resource. Mining depletion has already been applied to the Golden Eagle Mineral Resources listed in Tables 1 and 2.

Figure 2. Nullagine Gold Deposits Location Plan

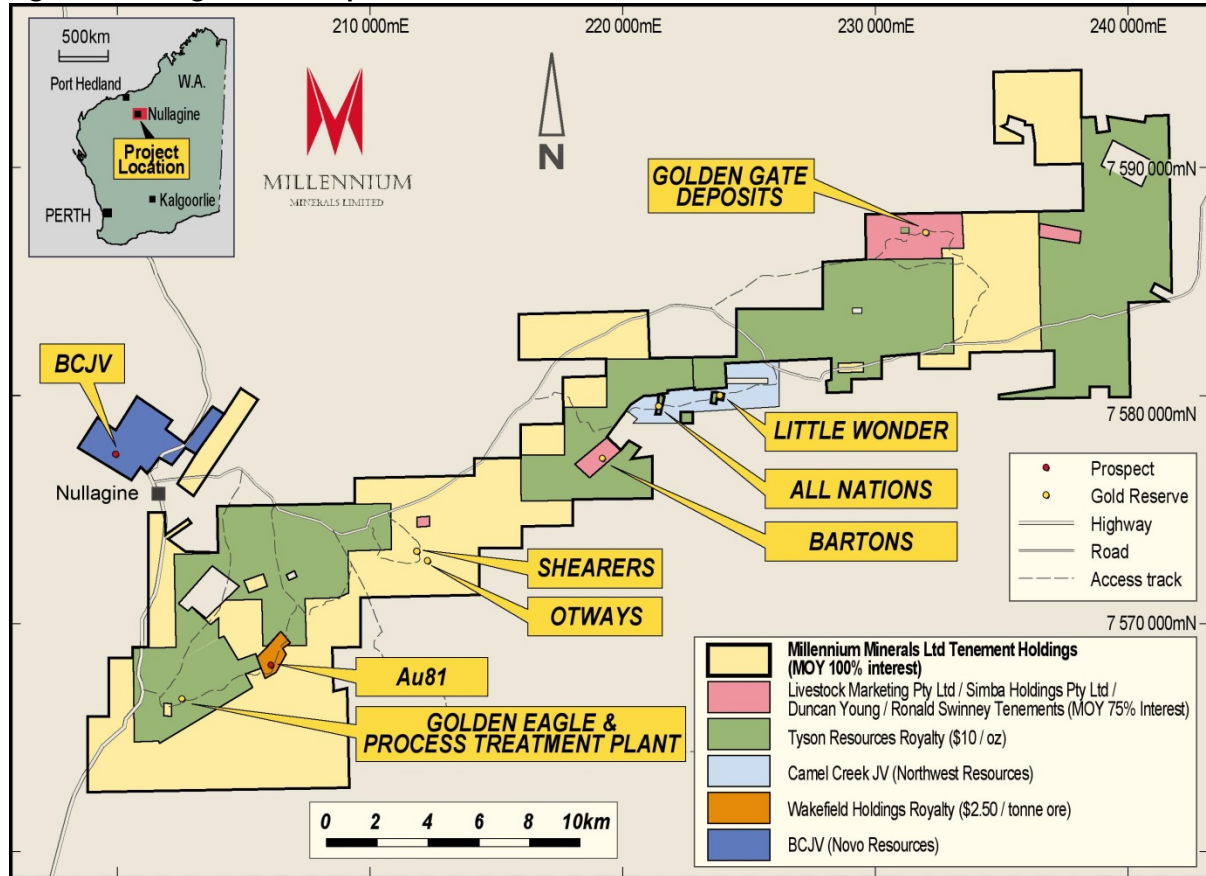
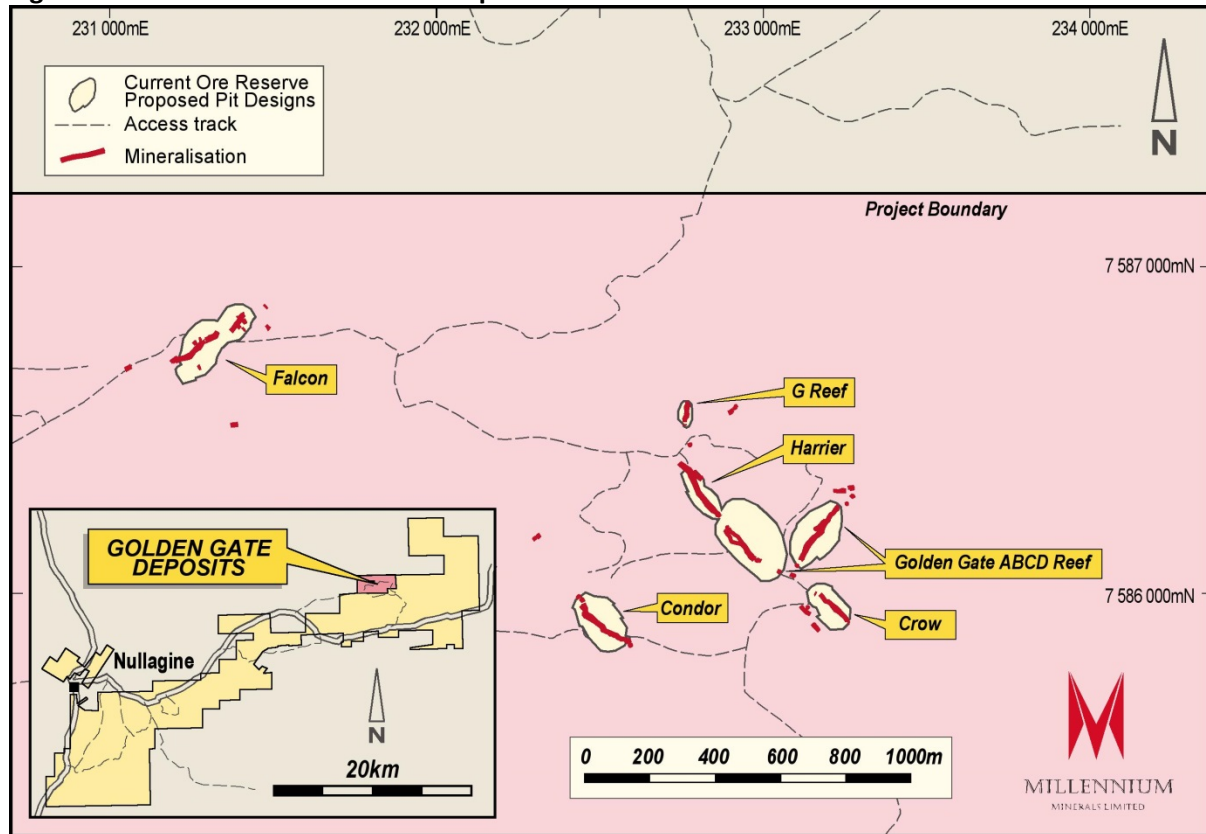


Figure 3. Golden Gate and Satellite Deposits Location Plan



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Figure 4. CC JV Gold Deposits Location Plan

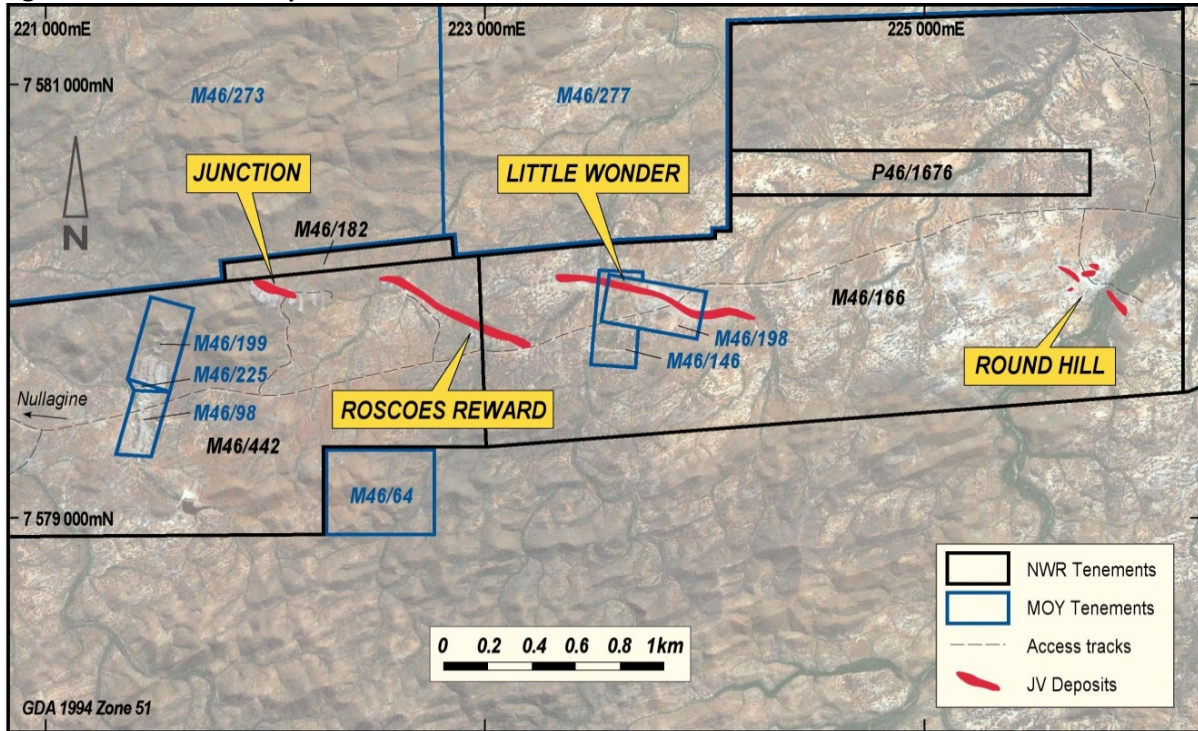
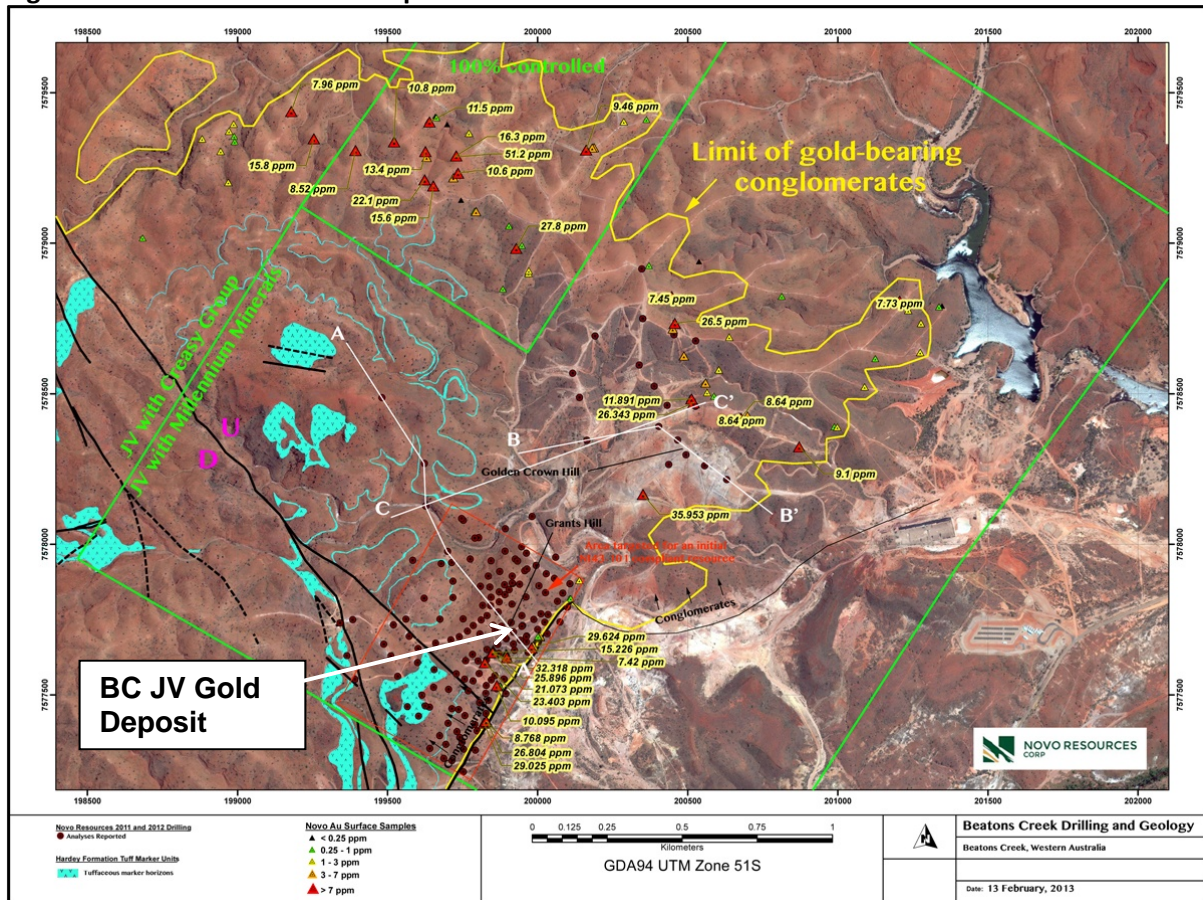


Figure 5. Beatons Creek Gold Deposit Location Plan



## **Background**

The Project now contains a 1.91 million ounce gold Mineral Resource (this release) situated within 9 deposits on granted mining leases (Table 2). The largest deposit is Golden Eagle, located approximately 10 kilometres south of the township of Nullagine and containing 42% of the new total Mineral Resource inventory. Mine construction commenced in July 2011 with first gold poured 30 September 2012. Commercial production was declared from 1 January 2013.

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Mineral Resources Estimate (includes 100% of Beaton Creek JV and 50% of Camel Creek Joint Venture)

Table 2. Nullagine Gold Project Mineral Resource Estimate November 2013 (0.5 g/t Au Cut off)

Deposit	Measured		Indicated		Inferred		Total		Ounces
	Mt	Grade g/t Au	Mt	Grade g/t Au	Mt	Grade g/t Au	Mt	Grade g/t Au	
Golden Eagle <sup>2</sup>	13.24	1.21	4.4	1.03	4.17	1.06	21.82	1.15	805,000
Bartons <sup>3</sup>	1.72	1.21	1.44	1.17	0.55	1.12	3.71	1.20	141,000
Shearers <sup>3</sup>	0.59	1.27	1.48	1.01	0.26	1.00	2.33	1.10	81,000
Otways <sup>3</sup>	1.15	0.81	0.9	0.87	0.692	0.92	2.74	0.86	75,000
All Nations <sup>3</sup>	1.26	1.36	0.55	1.08	0.42	1.04	2.23	1.23	88,000
Little Wonder <sup>3</sup>	0.47	1.35	0.25	1.43	0.22	1.68	0.94	1.45	43,700
Golden Gate (ABCD) <sup>4</sup>	0.66	3.30	0.16	2.99	0.14	2.29	0.95	3.10	95,000
Falcon <sup>4</sup>	-	-	0.09	3.90	0.04	4.40	0.14	4.00	18,000
Condor <sup>4</sup>	0.15	2.61	0.05	2.83	0.03	3.71	0.22	2.80	20,000
Harrier <sup>4</sup>	-	-	0.1	1.80	0.04	1.80	0.14	1.80	8,000
Crow <sup>4</sup>	0.04	3.14	0.04	2.62	0.05	2.34	0.12	2.65	10,500
G_Reef <sup>4</sup>	-	-	0.03	3.71	0.02	3.69	0.05	3.70	6,200
Au81 <sup>3</sup>	-	-	-	-	1.5	1.00	1.5	1.00	47,900
Camel Creek JV <sup>6</sup>	0.62	1.32	0.36	1.17	0.35	1.11	1.34	1.23	52,500
Beatons Creek Earn In <sup>7</sup>					8.9	1.47	8.9	1.47	421,000
<b>Total</b>	<b>19.9</b>	<b>1.29</b>	<b>9.85</b>	<b>1.14</b>	<b>17.38</b>	<b>1.30</b>	<b>47.13</b>	<b>1.26</b>	<b>1,912,800</b>

Notes:

1. Figures in Table may not sum due to rounding.
2. The Golden Eagle deposit was estimated using Multiple Indicator Kriging methodology for grade estimation by CSA Global.
3. The Bartons, Shearers, Otways, All Nations, Little Wonder and Au81 were estimated using Ordinary Kriging methodology for grade estimation by CSA Global.
4. The Golden Gate (ABCD reef), and Golden Gate satellite deposits, namely Falcon, Condor, Harrier, Crow and G Reef were estimated using Ordinary Kriging.
5. The Golden Gate and Bartons deposits are the subject of a mining licence agreement whereby Millennium has the sole and exclusive right to explore and mine gold and other minerals. Millennium then is required to pay 25% of the net proceeds to the tenement owners (Livestock Marketing Pty Ltd, Duncan Thomas Young, Simba Holdings Pty Ltd and Ronald Lane Swinney) after mining and processing cost deductions.
6. The Mineral Resources at the Camel Creek JV (CCJV) were estimated using Ordinary Kriging methodology by CSA Global. Only Millennium's 50% interest is stated in the above table.
7. The Mineral Resources at Beatons Creek deposit estimated using Ordinary Kriging methodology for grade estimation by Tetra Tech Inc. Beatons Creek is subject to a farmin- Joint Venture with Novo Resources Corp (Novo) (CNSX:NVO). Under the Farm-In agreement Novo may earn a 70% interest in the Beatons Creek tenements by delivering a bankable Feasibility Study on the property within 5 years of commencement of the Agreement which was executed in August 2011. "As Novo has yet to earn an interest in the Beatons Creek tenements, the Company accounts for 100% of the mineral resource on the Beatons Creek tenements.

The Mineral Resources estimates include previously stated Ore Reserves, and are calculated under the 2004 JORC code.

### **Competent Persons Statements – Exploration Results**

Mr Irvine Hay (MAIG), a geologist employed full-time by Millennium Minerals Limited, compiled the technical aspects of this Report. Mr Hay 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 2004 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Hay 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 the **Golden Eagle, Bartons, Shearers, Otways, All Nations, Little Wonder, CC JV, Golden Gate ABCD reef, and satellites Condor & Crow 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 Golden Eagle, Bartons, Shearers, Otways, All Nations, Little Wonder, Golden Gate ABCD reef, and Condor & Crow Golden Gate satellite deposits Mineral Resource estimates have 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) 2004 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 information in this Report which relates to the **Au81 Mineral Resource estimate** accurately reflects information prepared by competent persons (as defined by the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves). The Au81 deposit Mineral Resource estimate has been compiled and prepared by 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) 2004 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 information in this Report which relates to the **Golden Gate G reef Mineral Resource estimate** accurately reflects information prepared by competent persons (as defined by the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves). The Golden Gate G reef deposit Mineral Resource estimate has been compiled and prepared by Dmitry Pertel, (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) 2004 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 information in this Report which relates to the **Golden Gate Falcon and Harrier 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 Golden Gate Falcon & Harrier satellite deposits Mineral Resource estimates have been compiled and prepared by Steven Hodgson, (MAIG) formerly 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) 2004 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.

Patrick Huxtable of Tetra Tech, Perth, Australia, has prepared the Mineral Resource Estimate for the **Beatons Creek Gold Project**, and is independent of Novo Resources Corporation for purposes of National Instrument 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101"). Mr Huxtable (RPGEO MAIG) is a Qualified Person as defined by NI 43-101. Mineral resources that are not mineral reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues. The quantity and grade of reported inferred resources in this estimation are uncertain in nature and there has been insufficient exploration to define these inferred resources as an indicated or measured mineral resource and it is uncertain if further exploration will result in upgrading them to an indicated or measured mineral resource category. The mineral resources in this news release were estimated using current Canadian Institute of Mining, Metallurgy and Petroleum (CIM) standards, definitions and guidelines.

### **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.