



Corporate Details

Ordinary Shares:

780,917,069

Market Capitalisation:

~\$215 million

Cash at 31 Dec 2016:

~\$25.2 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

Contact Details

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December 2016 Quarterly Activities Report

Millennium set for another strong year in 2017 after exceeding 2016 guidance with excellent exploration, production and financial results

Guidance for 2017 set at 80,000-85,000 oz at AISC of \$1190/oz-\$1220/oz

Key Points

- December Quarter gold production 20,381 oz at AISC¹ of \$1219/oz²
- Free operating cash flow for the quarter of \$ 10.6 M³ before investment of \$4.2 M in exploration drilling, \$4.1 M in expansionary capital expenditure and \$1.2 M in environmental rehabilitation activities
- Cash and cash equivalents increases to \$28.4 M
- Full-year⁴ production of 86,325 oz, exceeding guidance of 80,000 oz - 85,000 oz, and AISC of \$1213/oz, within guidance range of \$1180/oz - \$1220/oz
- Outstanding exploration results continued to highlight the potential to grow the gold inventory and mine life with strong results from both near-mine targets and emerging greenfields discoveries
- Aggressive exploration campaign resumed mid-January 2017
- 2017 exploration budget increased to \$15 million – up from \$13.9 million in 2016
- Preliminary test work and studies to determine optimum method for processing Nullagine's extensive inventory of fresh material is ongoing
- 2017 full year guidance 80,000 – 85,000 ounces at an AISC of \$1190/oz - \$1220/oz

Millennium Minerals Limited (Millennium or Company - ASX: MOY) is pleased to report on a strong operational and financial performance for the 2016 December Quarter (**Quarter**) which saw it exceed its production guidance for 2016 and continue to grow its cash balance despite investing heavily in exploration and future growth initiatives.

¹ All-In Sustaining Cost (AISC) per ounce poured - represents: C1 Cash Costs; corporate costs; royalties; sustaining capital; development capital; tenement management; rehabilitation and reclamation accretion and employee share payments. It does not include expansionary development including construction of the new tailings dam; or tenement acquisition expenditure; or exploration and evaluation expenditure of new deposits and projects.

² Unless otherwise denoted all currency units are Australian dollars.

³ All data provided is unaudited.

⁴ Millennium's financial year (FY) is January to December.



The Company posted solid gold production of 20,381 oz for the Quarter at its Nullagine Gold Project (**Project** or **Nullagine**) in WA's Pilbara Region (**Figure 1**), taking production for the 12 months to December 31 to 86,325 oz.

This placed the Company ahead of its full-year guidance of 80,000 - 85,000 oz for FY2016.

The all-in sustaining cost (AISC) was \$1219/oz for the Quarter, representing a 2% improvement on the prior quarter. The AISC for the full 2016 year was \$1213/oz, which was within the Company's guidance range of \$1180/oz-\$1220/oz.

The average realised gold price for the Quarter was \$1699/oz. At 31 December 2016, the Company had hedging of 8,174 ounces to be delivered by 30 June 2017 at an average price of \$1775/oz.

The strong production and margins saw Millennium generate free operating cash-flow of \$10.6 million for the Quarter. This enabled the Company to invest \$4.2 million in exploration drilling, \$4.1 million on expansionary capital expenditure inclusive of a new tailings storage facility for current and future production, and \$1.2 million on rehabilitation activities.

Cash on hand at the end of the Quarter increased to \$25.2 million from \$24.1 million at 30 September 2016. In addition the company held \$3.2 million of bullion at the end of the Quarter. The Company has no debt.

Guidance for 2017 has now been set at 80,000 – 85,000 ounces at an AISC of \$1190/oz - \$1220/oz.

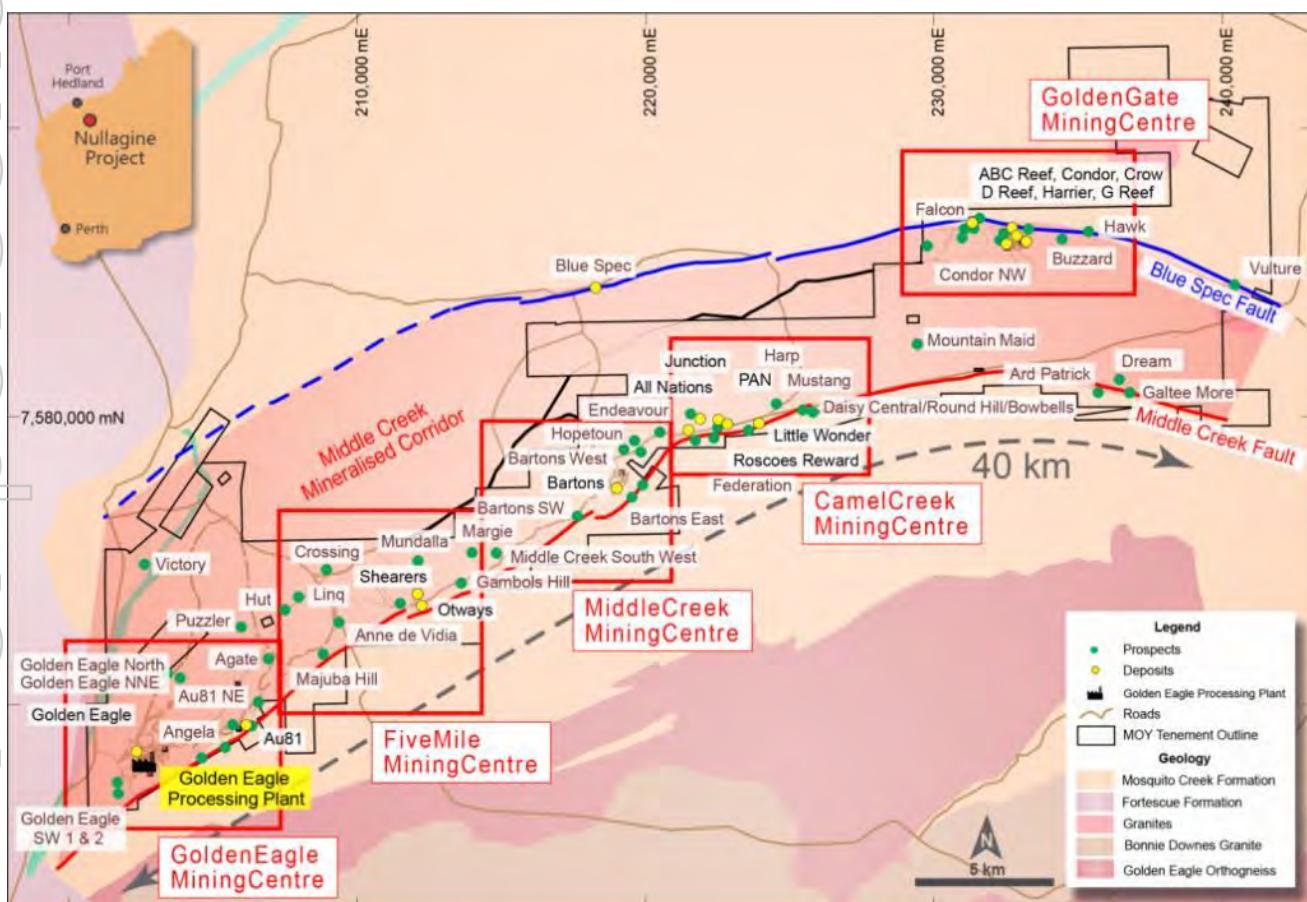


Figure 1: Nullagine Gold Project Location Plan over regional geology



During the Quarter, the Company announced that Ore Reserves at Nullagine had increased by 16 per cent to 184,300 oz while Mineral Resources rose by 12 per cent to 1.2 M oz (ASX Release 27 October 2016).

The total Group Mineral Resource inventory now stands at 29.6 Mt @ 1.2 g/t Au for 1,200,000 ounces and Ore Reserves at 3.95 Mt at 1.5 g/t Au for 184,300 ounces. Importantly, around 75 per cent of the 1.2 M oz Mineral Resource base is in the Measured and Indicated category.

During the Quarter, Millennium continued to generate outstanding exploration results from all five Mining Centres at the Project as part of its ongoing drilling campaign aimed at growing the **Project's gold inventory and mine life.**

At the Middle Creek Mining Centre, results received during the Quarter further strengthened the potential of the newly discovered 2.5 km-long Hopetoun – Endeavour trend of mineralisation (ASX release, 23 January 2017). These results support the potential to establish several open pit operations along this trend, which stretches from the All Nations North deposit in the north-east to the Hopetoun deposit to the south-west.

At the Camel Creek Mining Centre, reconnaissance drilling along the 1.2 km-long Daisy Central prospect (located between the Little Wonder and Round Hill deposits), the Mustang prospect and the immediate surrounds of the Little Wonder and Roscoes Reward deposits all returned significant high-grade results (ASX release, 23 January 2017), suggesting that the Camel Creek Mining Centre will become an important focus for resource drilling during 2017.

Highly encouraging new results were also returned from in-fill and follow-up drill programs from three deposits within the Five-Mile, Golden Gate and Golden Eagle Mining Centres (ASX release 25 January 2017).

Results from these drilling programs have yet to be incorporated into the Company's Mineral Resource and Ore Reserve statements (ASX Release 27 October 2016). As results are received on individual deposits, the new drilling will progressively enable updated Mineral Resource estimates to be calculated and included in the Company's Mineral Resource and Ore Reserve inventories.

Some of these latest drilling results will be included in the annual Mineral Resource update (due to be released in February 2017), whilst others will be included in subsequent updates.

Given the success of the exploration program and its positive impact on the Nullagine **Project's** mine life, Millennium has increased the exploration budget for 2017 to \$15 million – up from the \$13.9 spent on exploration in 2016. The **Company's** 2017 exploration program is now in full swing with four RC drill rigs having commenced drilling this month.

Millennium's Chief Executive Glenn Dovaston said the Quarter marked the completion of an outstanding year which saw gold production from the Nullagine project exceed guidance and the **Company's aggressive exploration strategy** showing much potential.

"The strong and consistent production and margins generated allowed us to further improve our financial position over the course of the year while continuing to invest heavily in the future of the operation through exploration," he said.

"We have just finalised our budgets for the year ahead and we are looking forward to another year of consistent, strong gold production with guidance for 2017 set at 80,000-85,000 oz at an all-in sustaining cost of A\$1190/oz-\$1220/oz per oz.



"In light of the outstanding success of our exploration strategy at Nullagine, we have also decided to boost our exploration spend to \$15 million for the year – allowing us to capitalise on the strong momentum we have achieved in recent months.

"As outlined in recent exploration updates, our aggressive drilling program is now delivering strong results on two fronts - near-mine, incremental resource growth opportunities and entirely new areas within our Project tenure where we see clear potential to establish resources during 2017," Mr Dovaston said.

"We are confident that our commitment to organic growth through exploration will continue to pay dividends through the year ahead, generating strong news-flow for our shareholders and, ultimately, being reflected in our mine life at Nullagine," he added.

Mine Safety, Environment and Community

Safety

There were zero lost time injuries (LTI) recorded for the Quarter, one Medical Treatment Injury (MTI) and one alternative duty injury reported.

A previous LTI reported last quarter has been re-classified as a re-occurrence of a non-mining related injury. The 12 month moving average for Lost Time Injury Frequency Rate is 0.00 (due to the re-classification of LTI mentioned above), the Total Reportable Injury Frequency Rate (TRIFR) is 9.87 and the Damage Frequency Rate (DAMFR) is 110.24 - which is under current industry averages for Western Australia (as reported by the Department of Mines & Petroleum (DMP)).

Environment and Heritage

Mining Proposals and Native Vegetation Clearing Permit applications were approved for the Anne De Vidia, Otway's extension and Gambols Hills deposits by the DMP during the Quarter.

Mining Proposals for the Little Wonder and All Nations extension pits, along with new deposits at Round Hill and Bow Bells, are currently being prepared.

Annual Statutory Compliance reporting to the DMP, Department of Regulation (DER) and Department of Water (DoW) were completed during the Quarter, with notification provided from the DER and DMP that site inspections have been scheduled for the region.

Ethnographic and archeological heritage surveys by Traditional Owner groups continued across the Project during the Quarter, with several areas cleared and approved for exploration and mining activities.

Community

Millennium highly values its role as a proactive member of the Nullagine township community and also maintains strong relationships within the broader community. In this light, the Company continues to work closely with several local service groups including schools, Police Force, Nursing Station and DFES as well as maintenance of the Nullagine airstrip for community operational readiness (RFDS).

Also during the Quarter, the Company initiated an employment business opportunity with Njamal elders to provide local staff to the Project. This employment program has provided opportunities for ongoing business development and learning for members of the community, while offering greater cross cultural awareness for both parties.



Operational Activities Summary

The Company produced **20,381** ounces for the Quarter at a C1 cash cost of \$1067/oz and an AISC of \$1219/oz. This resulted in the Company generating **\$10.6 million** for the Quarter before expenditure of \$4.2 million on exploration drilling, \$4.1 million on expansionary capital expenditure and \$1.2 million on rehabilitation activities.

The expansionary capital expenditure during the Quarter was primarily focused on the ongoing construction of a new tailings storage facility which will provide the necessary infrastructure to support an increased mine life at the Project

During this period, mining continued at the Shearers and Otways deposits and recommenced at Golden Eagle for a short period while permitting and preparations for mining activities were undertaken for the Company's new deposit, Anne de Vidia.

The processing plant continued to perform well above design capacity with a throughput of 510,529 tonnes (equating to more than 2 Mtpa). A comparison of the operating results for the Quarter to the previous four quarters is provided in **Table 3** below:

Table 3 – Quarterly Comparative Results

Quarter ended	Dec-15	Mar-16	Jun-16	Sept-16	Dec-16
Total volume mined (bcm)	812,483	777,365	886,640	1,408,746	987,764
Ore milled (tonnes)	458,294	507,206	462,108	507,847	510,529
Head grade (g/t Au)	1.77	1.46	1.65	1.32	1.73
Metallurgical recovery (%)	93	91	91	91	69⁵
Fine gold production (ounces)	22,503	23,166	22,760	20,018	20,381
Gold sold (ounces)	22,495	23,060	22,908	19,006	19,448
Gold sales revenue (\$M)	33.5	34.4	36.8	32.9	33.1
C1 cash cost ⁶ (\$/ounce poured)	890	968	994	1,098	1,067
All-in sustaining cost ⁷ (\$/ounce poured)	1,191	1,195	1,193	1,249	1,219
Cash flow before financing activities (\$M)	5.2	7.1	5.1	2.6	1.1

Corporate Activities

Gold sales revenue for the Quarter totaled \$33.1 million, which was achieved at an average realised gold price of \$1699/oz, consisting of 8,238 ounces sold at an average spot price of \$1620/oz and 11,250 ounces delivered into the Company's hedge facility at an average price of \$1757/oz.

At 31 December 2016, the Company's hedge book consists of 8,174 ounces to be delivered by 30 June 2017 at an average forward gold price of \$1775/oz.

⁵ Lower recovery but higher grade due exploiting the transition / fresh material within the Golden Eagle pit

⁶ C1 cash cost represents the costs for mining, processing, administration, by-product credits and accounting adjustments for movements in stockpiles, gold in circuit and waste stripping. It does not include capital expenditure, exploration, tenement management, royalties and corporate administration costs.

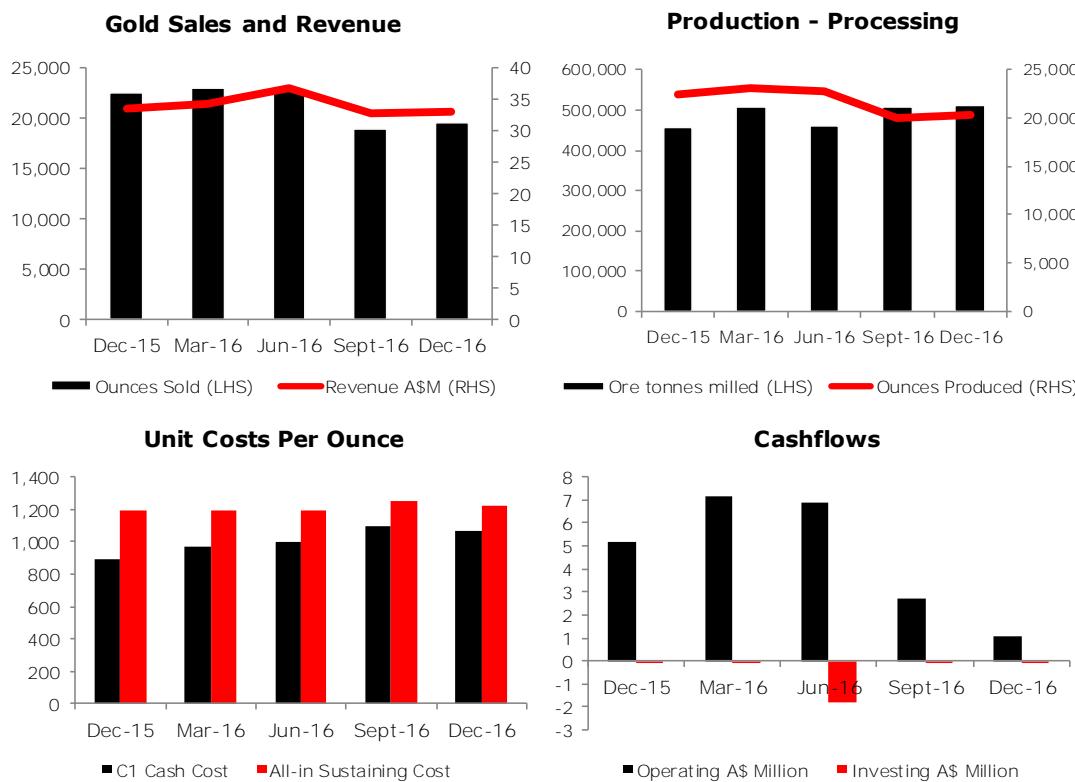
⁷ All-In Sustaining Cost (AISC) per ounce poured - represents: C1 Cash Costs plus: corporate costs; royalties; sustaining capital; development capital; tenement management; rehabilitation and reclamation accretion and employee share payments. It does not include expansionary development including construction of the new tailings dam; or tenement acquisition expenditure; or exploration and evaluation expenditure of new deposits and projects.



Millennium remains debt-free after retiring all debt liabilities during the March 2016 Quarter. As at 31 December 2016, the Company held cash and bullion totaling \$28.4 million with shares on issue of 780,917,069.

Operating Costs and Forward Guidance

The charts below show comparative operating and financial results for the last five quarters.



Exploration Activities

During the Quarter, Millennium continued to generate outstanding exploration results from all five designated Mining Centres at the Project as part of its ongoing drilling campaign aimed at growing the **Project's gold inventory and mine life**.

A brief summary of activities carried out at each Mining Centre is provided below.

Middle Creek Mining Centre

At the Middle Creek Mining Centre, results received during the Quarter further strengthened the potential of the newly discovered 2.5 km-long Hopetoun – Endeavour trend of mineralisation.

The Hopetoun North – Endeavour trend is interpreted to represent gold mineralisation along the same fault/shear corridor that hosts the well-endowed Bartons deposit to the south-west (**Figure 2**). This newly discovered mineralised zone potentially represents a significant north-eastern extension to this high grade mineralised trend.

Significant results included (ASX release, 23 January 2017):

- **20 m @ 2.51 g/t Au** from 28 m including **1 m @ 5.00 g/t Au** (EDRD034)
- **6 m @ 5.73 g/t Au** from 52 m including **3 m @ 9.41 g/t Au** (HNRD046)
- **4 m @ 3.33 g/t Au** from 3 m including **1 m @ 12.7 g/t Au** (EDRD107)
- **9 m @ 3.20 g/t Au** from 43 m including **2 m @ 9.70 g/t Au** (HNRD063)



- **10 m @ 2.19 g/t Au** from 27 m including **1 m @ 7.14 g/t Au** (HNRD058)
- **4 m @ 2.75 g/t Au** from 4 m including **1 m @ 5.29 g/t Au** (EDRD076)

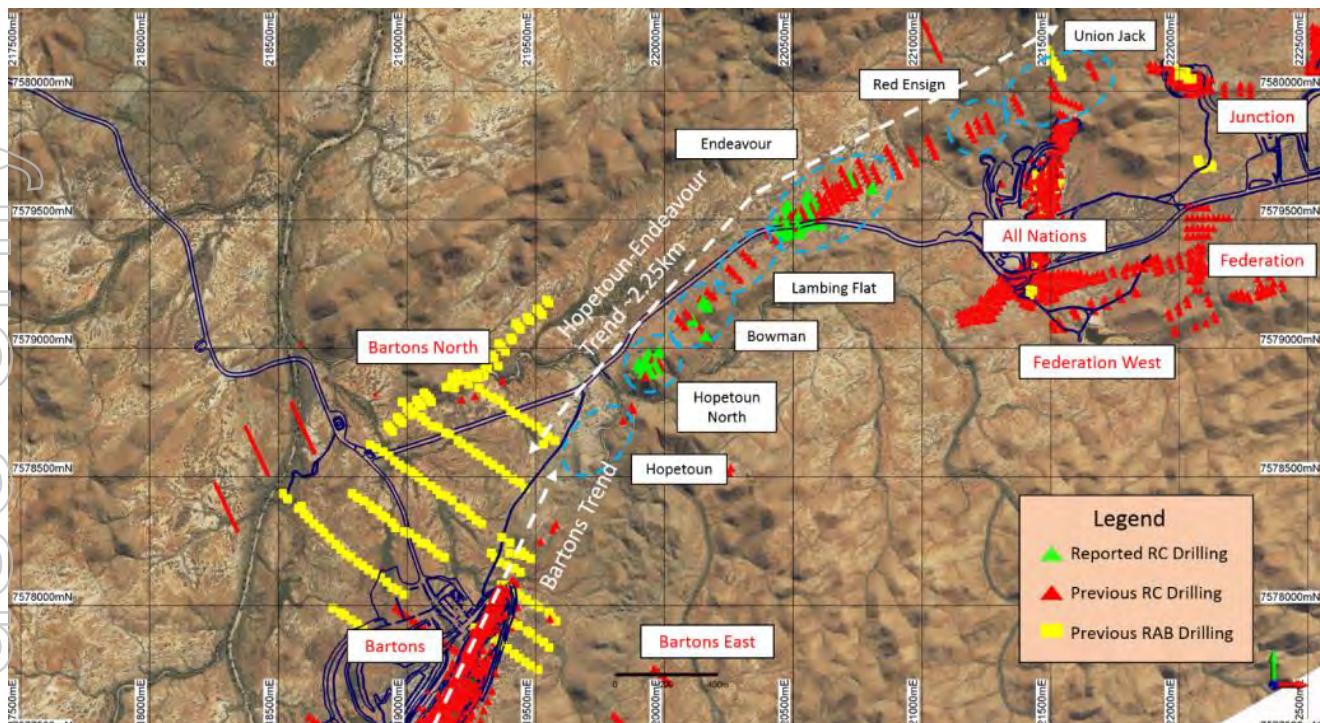


Figure 2: Location Map of the Hopetoun-Endeavour Trend showing key prospects and drill hole locations

These results support the potential to establish several open pit operations along this trend, which stretches from the All Nations North deposit in the north-east to the Hopetoun deposit to the south-west. These encouraging results will now be followed-up by drill programs during the Quarter to test for extensions to the known mineralisation and infill existing wider spaced reconnaissance lines.

Camel Creek Mining Centre

At the Camel Creek Mining Centre, reconnaissance drilling along the 1.2 km-long Daisy Central prospect (located between the Little Wonder and Round Hill deposits), the Mustang prospect and the immediate surrounds of the Little Wonder and Roscoes Reward deposits all returned significant high-grade results suggesting that the Camel Creek Mining Centre will become an important focus for resource drilling during 2017.

At the Daisy Central Prospect (**Figure 1**), the Company completed three wide-spaced reconnaissance RC lines to test for the presence of anomalous gold beneath the colluvium cover as well as to confirm the structural controls on mineralisation.

The results from this drilling delivered immediate success which potentially indicates significant bedrock mineralisation along multiple trends at Daisy Central. Better results include (ASX release, 23 January 2017):

- **4 m @ 12.11 g/t Au** from 39 m including **1 m @ 44.30 g/t Au** (DCRD0031)
- **9 m @ 1.32 g/t Au** from 32 m (DCRD0022)
- **4 m @ 4.80 g/t Au** from 57 m including **1 m @ 15.0 g/t Au** (DCRD0032)

Drilling has been planned to follow up these highly encouraging results at Daisy Central and is set to commence during the March 2017 Quarter.

At the Mustang prospect (**Figure 1**), the Company completed two reconnaissance drilling programs during the Quarter to further test the extent of the soil anomaly. Significant results include (ASX release, 23 January 2017):

- **6 m @ 3.95 g/t Au** from 43 m including **2 m @ 10.13 g/t Au** (MURD0079)
- **7 m @ 2.63 g/t Au** from 46 m including **1 m @ 11.2 g/t Au** (MURD0073)
- **7 m @ 2.27 g/t Au** from 25 m including **1 m @ 5.29 g/t Au** (MURD0069)
- **5 m @ 3.68 g/t Au** from 22 m including **1 m @ 7.98 g/t Au** (MURD0031)
- **4 m @ 3.90 g/t Au** from 9 m including **1 m @ 5.41 g/t Au** (MURD0036)

A continuous high-grade mineralised zone has now been defined over a 200 m strike extent close to the historical workings. An in-fill and extensional drill program is planned to commence at Mustang this quarter.

During the Quarter, the Company also completed drill programs to test for the presence of parallel mineralised structures between the existing Little Wonder and Roscoes Reward deposits (**Figure 1**), and potential strike extensions to the known mineralisation at Roscoes Reward.

The drilling conducted between Little Wonder and Roscoes Reward returned highly encouraging results indicating that parallel mineralised zones are present with results including (ASX release, 23 January 2017) (**Figure 3**):

- **11 m @ 1.81 g/t Au** from 62 m (CCRD0032)
- **4 m @ 11.66 g/t Au** from 44 m including **1 m @ 43.1 g/t Au** (CCRD0044)

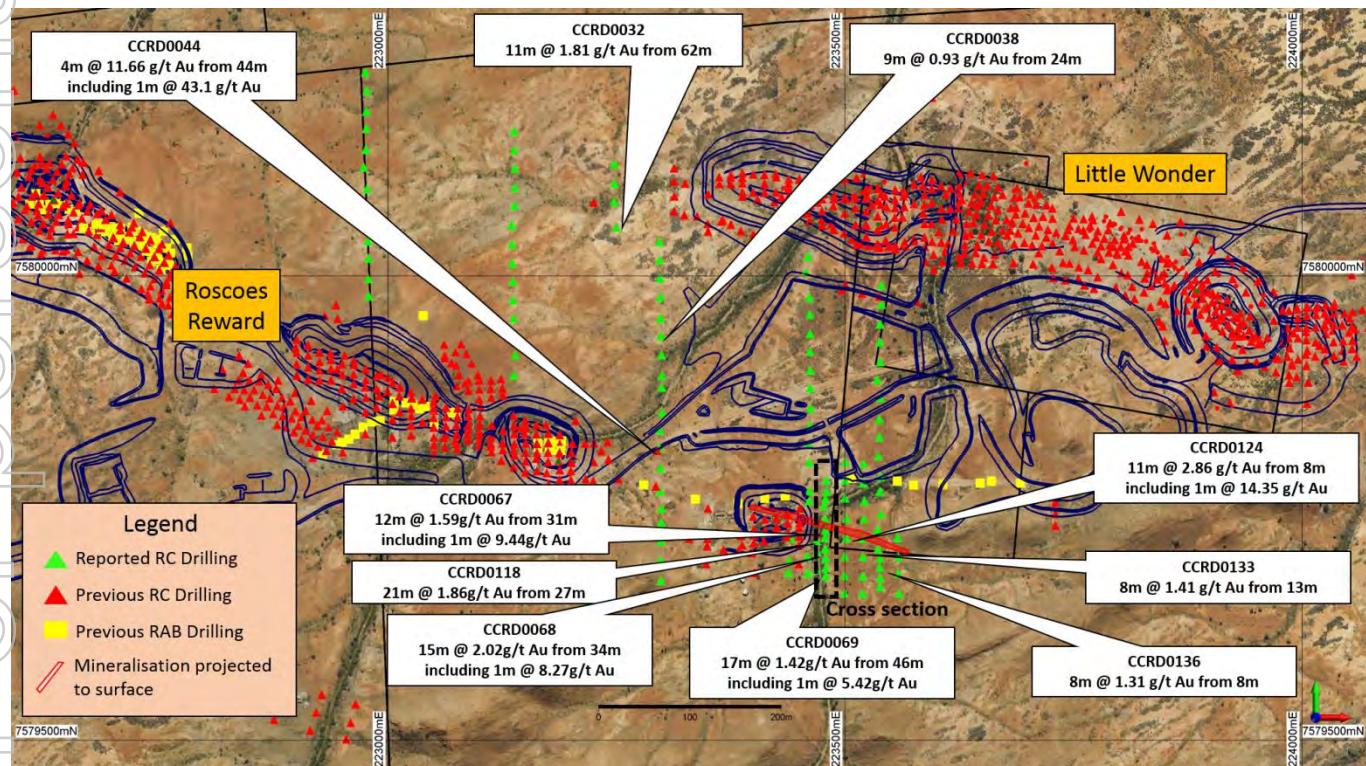


Figure 3: Little Wonder and Roscoes Reward in-fill and extensional drilling locations and intercepts

A drill program was also completed to test for the presence of an easterly extension to the Roscoes Reward Pit 4. Significant results included (ASX release, 23 January 2017) (**Figure 3**):

- **15 m @ 2.02 g/t Au** from 34 m including **1 m 8.27 g/t Au** (CCRD0068)
- **17 m @ 1.42 g/t Au** from 46 m indicating **1 m @ 5.42 g/t Au** (CCRD0069)



- **12 m @ 1.59 g/t Au** from 31 m including **1 m @ 9.44 g/t Au** (CCRD0067)
- **11 m @ 1.25 g/t Au** from 49 m (CCRD0114)
- **21 m @ 1.86 g/t Au** from 27 m (CCRD0118)
- **11 m @ 2.86 g/t Au** from 8 m including **1 m @ 14.35 g/t Au** (CCRD0124)
- **10 m @ 1.98 g/t Au** from 45 m (CCRD0127)
- **6 m @ 2.10 g/t Au** from 32 m (CCRD0144)
- **8 m @ 2.08 g/t Au** from 45 m (CCRD0145)

Follow-up drilling to test the extensional continuity of parallel mineralised structures between the Little Wonder and Roscoes Reward deposits is planned for 2017.

Middle Creek Mining Centre

During the Quarter, the Company completed drilling to test for parallel mineralised structures and extensions to the known mineralisation at the Majuba Hill Project (**Figure 1**). Significant results include (ASX release, 25 January 2017) (**Figure 4**):

- **9 m @ 8.15 g/t Au** from 0 m including **1 m @ 60.4 g/t Au** (FMX1314)
- **9 m @ 4.98 g/t Au** from 29 m including **6 m @ 6.79 g/t Au** (FMX1267)
- **10 m @ 2.28 g/t Au** from 37 m (FMX1331) including **1 m @ 10.40 g/t Au** (FMX1331)

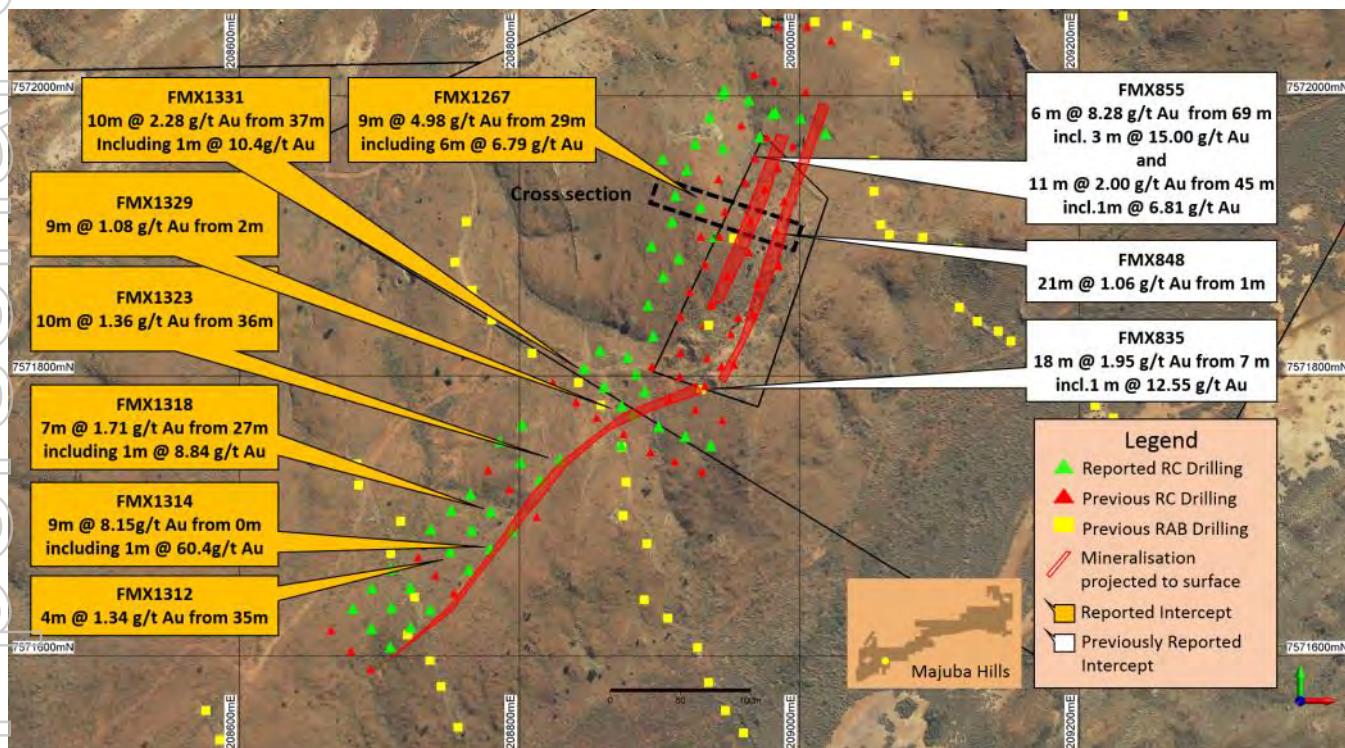


Figure 4: Majuba Hill location plan showing significant intercepts from RC drilling

Further drilling has already commenced in the March 2017 Quarter to follow up these encouraging results with the aim to increase the Mineral Resources and Ore Reserves at Majuba Hill.

Golden Gate Mining Centre

At the Condor prospect (**Figure 1**), the Company drilled 29 RC holes to test for north-west extensions of the existing Condor mineralisation during the Quarter. This drilling returned significant results and further defined two new zones of mineralisation. Significant results from this drilling included (ASX release, 25 January 2017) (**Figure 5**):

- **6 m @ 8.45 g/t Au** from 6 m including **3 m @ 14.48 g/t Au** (CORD014)



- **19 m @ 3.14 g/t Au** from 0 m including **3 m @ 13.84 g/t Au** (CORD019)
- **10 m @ 6.56 g/t Au** from 3 m including **4 m @ 15.09 g/t Au** (CORD021)
- **5 m @ 10.92 g/t Au** from 21 m including **2 m @ 24.72 g/t Au** (CORD026)
- **3 m @ 14.97 g/t Au** from 33 m (CORD030)
- **5 m @ 5.94 g/t Au** from 36 m including **2 m @ 11.62 g/t Au** (CORD015)
- **5 m @ 4.44 g/t Au** from 13 m including **3 m @ 6.38 g/t Au** (CORD035)

Drill planning is underway to in-fill this newly defined mineralisation on a 20m x 20m drill spacing to establish a maiden Mineral Resource estimate for the Condor north-west mineralisation. In addition, drilling to test for further extensions and parallel veins will commence in the March 2017 Quarter.

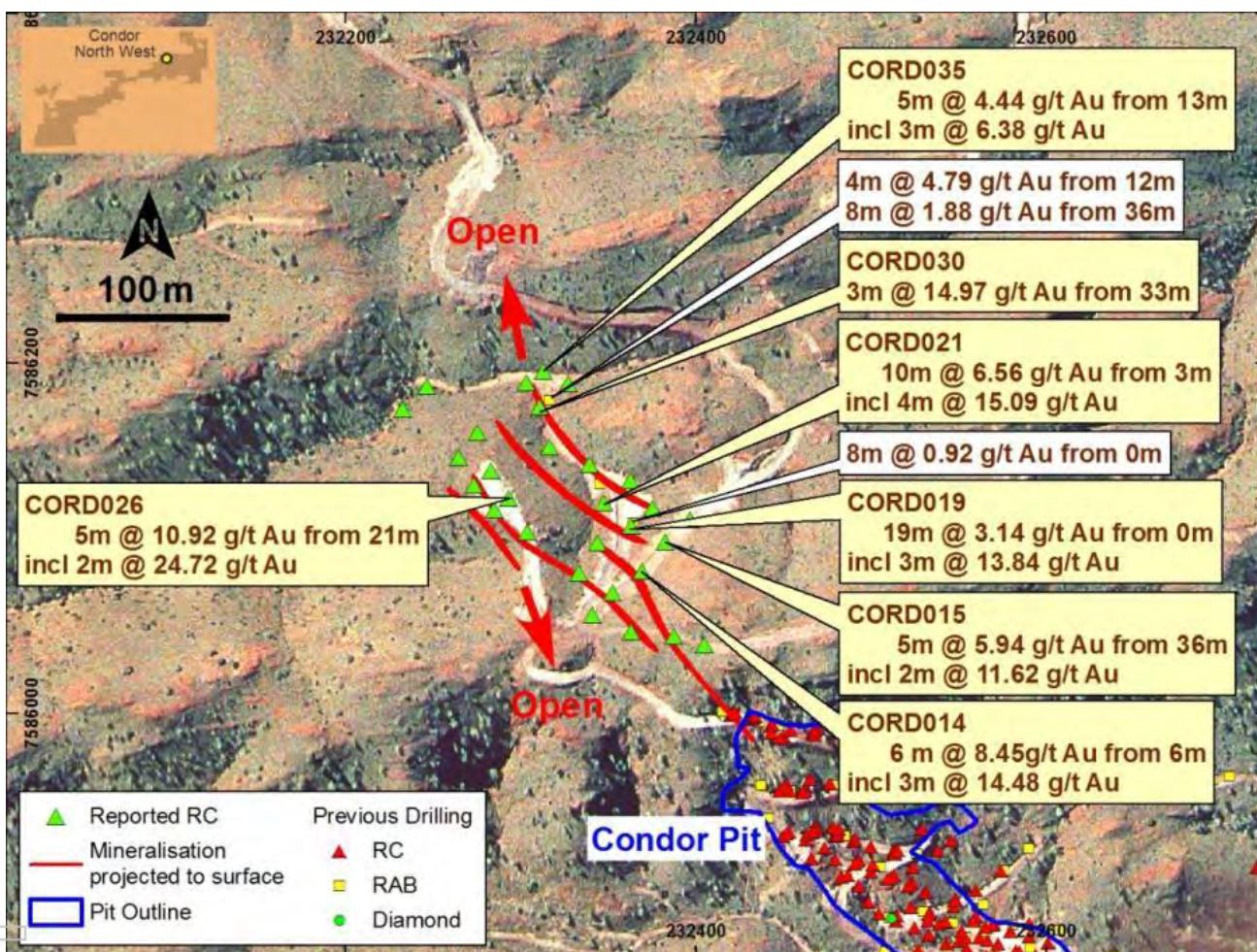


Figure 5: Condor location plan showing significant intercepts from RC drilling

Golden Eagle Mining Centre

Agate

At the Agate Prospect (**Figure 1**) the Company completed two RC drilling programs during the Quarter which has identified at least two zones of parallel mineralisation that returned economic intersections. Results included (ASX release, 25 January 2017):

- **12 m @ 2.70 g/t Au** from 45 m including **1 m @ 6.3 g/t Au**, **1 m @ 6.71 g/t Au** and **1 m @ 8.81 g/t Au** (OMX027)
- **11 m @ 2.27 g/t Au** from 39 m including **4 m @ 5.24 g/t Au** (OMX058)
- **13 m @ 1.67 g/t Au** from 26 m including **2 m @ 5.45 g/t Au** (OMX064)
- **9 m @ 1.72 g/t Au** from 11 m including **1 m @ 5.06 g/t Au** (OMX063)



- **5 m @ 2.96 g/t Au** from 39 m including **1 m @ 9.66 g/t Au** (OMX055)
- **4 m @ 2.16 g/t Au** from 25 m (OMX061)

Based on these results, a maiden Mineral Resource estimate will be completed for Agate and this will be optimised to define a maiden Ore Reserve for the deposit. Future drilling at the prospect will be dependent on the results of the optimisation study.

ENDS

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For media inquiries, please contact:
Paul Armstrong – Read Corporate
+61 421 619 084

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 mineralisation 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.

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.