ASX Code: MOY

#### **Corporate Details**

Ordinary Shares: 891,186,531

**Market Capitalisation:** ~\$135 million

Cash, bullion and available financing facilities at 31 March 2019: \$18.6 million

Debt at 31 March 2019: \$15 million

**ASX Code: MOY** 

#### **Board of Directors**

**Greg Bittar** 

Non-Executive Chairman

**Bruno Lorenzon** 

Non-Executive Director

**Tim Kennedy** 

Non-Executive Director

**Peter Lester** 

Non-Executive Director

## **Management**

Peter Cash

Chief Executive Officer

**Ray Parry** 

Chief Financial Officer and Company Secretary

#### **Contact Details**

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30 April 2019

# **March 2019 Quarterly Activities Report**

# **Nullagine Operations**

- 25,926oz mined as new sulphide ore sources come on stream.
  2,300oz stockpiled pending commissioning of the Stage 1 plant expansion.
- 20,008oz gold sold and quarterly production of 17,393oz at an AISC of A\$1,576/oz.
- Quarterly production impacted by lower average head grade due to increased dilution and delays in commencing stoping at Bartons.
- This lower production level resulted in the higher AISC per ounce.
- Commissioning of Stage 1 of the processing plant expansion commenced in April with ramp-up underway.
- Gold concentrate delivered late in the month is being stockpiled ahead of the installation of ultra-fine grind mills in early June.
- Review of the overall mine plans and schedule currently underway to reduce the level of dilution.

# Exploration

- Strong drilling results continue to support the potential to develop multiple new high-grade open pit and underground ore sources at Golden Gate, where open pit mine development will commence this quarter.
- Updated Ore Reserve as at 31 December 2018 of 7.1Mt at 1.6g/t Au for 375,300oz of contained gold:
  - 70% increase in Ore Reserves since 31 December 2017 (221,600oz), net of mining depletion of 98,902oz.
  - Delivers mine life visibility approaching four years

# **Corporate**

 \$15M raised through an oversubscribed 1-for-8.8 renounceable rights issue. Proceeds to support mine development and exploration programs.



Millennium Chief Executive Peter Cash said the March Quarter had been a transitional period at Nullagine with new sulphide ore sources coming on stream, the ramp-up of underground mining continuing at Bartons and construction of the Stage 1 sulphide plant expansion continuing.

"This was a challenging period in a number of respects with a slower-than-expected ramp-up of commercial stoping at Bartons and an approximate six week delay in the commissioning of the Stage 1 sulphide plant. We now expect to complete construction and commence commissioning of the mills in May, enabling processing of sulphide ore to commence during June.

"Despite these frustrations, we delivered a solid overall mining performance with 25,926oz mined reflecting the introduction of new sulphide ore sources. This underpinned gold sales of 20,008oz and production of 17,393oz despite, holding back approximately 2,300oz that have been stockpiled on the ROM pad to maximise value of the ore via treatment through the expanded sulphide plant.

"The lower production level for the quarter reflected a combination of factors including the delay in commissioning the Stage 1 sulphide plant, a slower-than-expected ramp-up of stoping operations at the Bartons underground and an increased level of dilution, which translated into a lower average head grade for the quarter.

"All-in costs for the March Quarter were A\$1,576 per ounce, which reflected the costs associated with mining and stockpiling, but not processing the additional ounces, as well as the lower ounce production level. These stockpiled ounces will contribute to production for the June 2019 Quarter as the full commissioning of Stage 1 of the sulphide expansion project comes on stream.

"We are currently re-optimising our overall mine schedule with a particular focus on reducing the level of dilution in both open pit and underground operations. This work will continue over the next few weeks, and we will update the market on the key outcomes at the appropriate time."

## Mine Safety, Environment and Community

## Safety

There was one lost-time injury, no medically treated injuries and two alternative duty injuries recorded for the quarter.

The 12-month moving average for the Lost Time Injury Frequency Rate (LTIFR) has increased to 1.18. The Total Reportable Injury Frequency Rate (TRIFR) has risen to 7.09 due to the three injuries for the quarter.

Our focus in the March quarter was to assist and support the mobilisation, set-up and commencement of the Sulphide Plant Expansion Project. The team worked exceptionally well interfacing with the operational team with the priority being a safely delivered project.

## **Environment and Heritage**

An audit of the Company's annual Mine Rehabilitation Fund assessment was completed by the Department of Mines, Industry Regulation and Safety (DMIRS) during the Quarter, with approval received from DMIRS.

Environmental Survey work and preparation of a site-wide Mining Proposal continues, with promising exploration targets and future underground opportunities highlighted for proposed development envelopes.

The local Njamal group were engaged during the Quarter to assist with the construction works on the Tailings Storage Facility (TSF).

Cultural road-mapping continued across the operation during the March Quarter, with the Njamal Group actively contributing to the collection of recordings and culturally significant stories from the surrounding area.



## Community

Millennium has been working closely with the Nullagine Remote Community School to assist in continued education outside of the local region. Assistance was provided in developing and implementing a work experience program for school students for late 2018 and early 2019.

The Company continued its support for the development of skills for life after school and agreed to provide financial support for a school excursion to Perth and assist the school with organising visits to universities and sporting events in Perth, which will take place in May 2019.

Millennium has also committed once again to participate in the ANZAC service in Nullagine at Lynas Lookout. Personnel on site from both Millennium and our Contractors participated in the service. Millennium has enhanced its involvement to the Marble Bar Remote Community School in the supply of Remembrance Poppies for their service.

## **Operational Activities Summary**

The Company produced 17,393oz for the quarter at a C1 cash cost of A\$1,480/oz and an AISC of A\$1,576/oz.

A further 2,300 ounces of high-grade sulphide ore was mined and stockpiled, awaiting final commissioning of the expanded sulphide plant.

Production was primarily sourced from the Au 81, Golden Eagle, Shearers North and Mundalla pits. First stoping ore was delivered from Bartons underground in mid-March, with this mine still in rampup phase.

The mining rate at Nullagine in the March Quarter was a monthly average of approximately 350,000 Bank Cubic Metres (BCM). This is in line with the open pit operating strategy for FY19.

Mill throughput averaged 174kt per month over the quarter. Recoveries reduced through a combination of lower grades and increased transitional ore processed. This is predominantly from the Golden Eagle open pit.

Table 1 - Quarterly Comparative Results

		Jun-18	Sep-18	Dec-18	Mar-19
Total volume mined	bcm	1,323,820	1,818,484	1,569,118	1,052,086
Ore mined	t	568,927	529,152	602,871	498,493
Ore processed	t	436,887	523,614	458,174	521,052
Head grade	g/t	1.01	1.53	1.98	1.35
Metallurgical recovery	%	83.8	86.8	83.7	77
Fine gold production	oz	12,639	22,414	24,514	17,393
Gold sold	oz	15,129	21,945	22,782	20,008
Gold sales revenue	\$M	26.0	36.5	39.2	35.0
Cash Operating Cost	\$/oz	2,020	1,183	1,156	1,480
All-in Sustaining Cost	\$/oz	2,178	1,324	1,216	1,576

The grade of the open pit material processed during the quarter was slightly lower than the planned grade of 1.5g/t, representing a shortfall of 12 percent. Higher-than-planned dilution occurred while mining the final benches of Golden Eagle.



Mine stoping commenced at Bartons Underground in March, approximately four weeks behind schedule due to lateral extensions of the ore body delaying the commencement of ore production. It is expected that ore stoping will be in full production before the end of June quarter.

## **Corporate Activities**

As at 31 March 2019, the Company held cash and bullion of \$18.6 million, inclusive of net proceeds from the Renounceable Rights Issue (\$14M) and bullion (\$4.0M).

During the Quarter, Millennium undertook a fully-underwritten 1-for 8.8 Renounceable Rights Issue, which closed on 27 March 2019 and raised \$15 million (before costs).

The Company received applications from shareholders for a total of 75,839,545 shares, amounting to \$12.514 million and representing a total take-up of 84 per cent.

This comprised applications totalling 61,893,389 shares under the Rights Issue (totalling \$10.212 million) and additional applications totalling 13,946,156 (totalling \$2.301 million).

The Rights Issue was fully-underwritten by Bell Potter Securities, with sub-underwriting provided by the Company's major shareholder, IMC Group.

IMC Group subscribed for its full entitlement under the Rights Issue, demonstrating its continued strong support of the Company.

In addition to applications from existing shareholders, Bell Potter received applications under the underwriting agreement totalling a further \$4.3 million, taking total applications to \$16.780 million.

As a result of the significant level of applications received from new investors, there was no requirement for IMC to take up any shortfall under the sub-underwriting agreement and applications under the underwriting agreement were scaled back to \$2.5 million.

Following completion of the Rights Issue, the Company has issued 90,802,913 shares at 16.5 cents per share.

Proceeds from the capital raising will be used to fast-track key growth programs at Nullagine, including:

- \$10 million for the development of a new high-grade underground mine at the Golden Gate Mining Centre;
- \$4 million to accelerate exploration of high-grade gold targets, increasing the Company's total exploration budget for CY2019 to \$12 million; and
- \$1 million for general working capital and costs of the capital raising.

At Quarter-end, the \$15M Revolving Loan Facility (RLF) with Investec was fully drawn.

Gold sales revenue for the quarter totalled \$35 million, which was achieved at an average realised gold price of \$1,751/oz.

At 31 March 2019, the Company's hedge book consisted of 42,900 ounces to be delivered over the period April 2019 – March 2020 at an average forward gold price of \$1,755/oz. March quarter cash and bullion movements are shown in Figure 1 below.

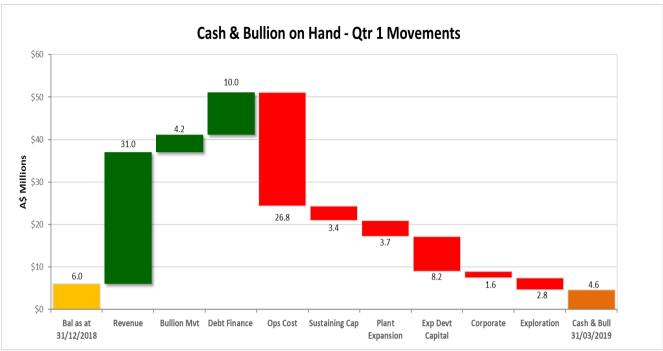


Figure 1: March 2019 quarter cash and bullion movements

\*Figure 1. Does not include the entitlement offer proceeds

## **Reserves and Resources Update**

The Company's ongoing aggressive exploration programs at the Nullagine Gold Project have again successfully extended mine life, with an updated Ore Reserve estimate for the 12 months to 31 December 2018 delivering a 70% increase in Ore Reserves to 375,300oz, up from 221,600oz as at 31 December 2017 (net of mining depletion of 98,900oz for CY2018).

The increase in Ore Reserves is a result of recent successful drilling programs, as well as the conversion of several Mineral Resource estimates to Ore Reserves.

The Mineral Resource at 31 December 2018, net of mining depletion, stands at 22.9 million tonnes at 1.6g/t Au for 1.16Moz, with approximately 65 per cent of the total in the higher confidence Measured and Indicated categories.

The updated Ore Reserve delivers mine life visibility approaching four years.

The Company's objective is to further increase its Ore Reserve base to deliver a plus-five year mine life, with significant opportunities to deliver near-term Ore Reserve growth through the conversion of additional sulphide Mineral Resources and through further exploration success.

The updated Ore Reserve includes a maiden Ore Reserve estimate for Golden Gate Underground of 220,000 tonnes at 3.8g/t Au for 27,100oz. This Ore Reserve is underpinned by the recent strong metallurgical test work results from arsenopyrite-dominant sulphide ore using Millennium's patented pressurised in-mill oxidation process (PINOX), which delivered gold recoveries averaging approximately 70 per cent (see below).

#### Mineral Resources

The Mineral Resources Statement as at 31 December 2018 is reported according to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the 'JORC Code') 2012 edition. The Mineral Resources are reported inclusive of Ore Reserves and exclusive of all mined (depleted) material.

Table 2: December 2018 Mineral Resource Estimate by Resource Category

Mineral Resource Category	Million Tonnes	Grade (g/t Au)	Thousand Ounces
Measured	5.69	1.6	287.6
Indicated	9.19	1.5	461.6
Inferred	7.97	1.6	410
Total	22.85	1.6	1,159.1

#### Ore Reserves

The total Project Ore Reserve estimate as at 31 December 2018, depleted for mining, is set out in Table 3 below:

Table 3: 2018 Total Ore Reserve Estimate by Reserve Category

Ore Reserve Category	Million Tonnes	Grade (g/t Au)	Thousand Ounces
Proved	1.58	1.5	74.2
Probable	5.55	1.7	301.2
Total	7.14	1.64	375.3

Full details of the Reserve and Resource estimates are provided in the Company's ASX Announcement dated 4 February 2019.

# **Bartons Underground**

During the March Quarter, stoping commenced on the 245 Level at both the Northern and Southern extents. Stopes completed to the end of the quarter are shown below in Figure 2 in pink. The original development (grey) has been included to show the increase in strike extents developed during the guarter.

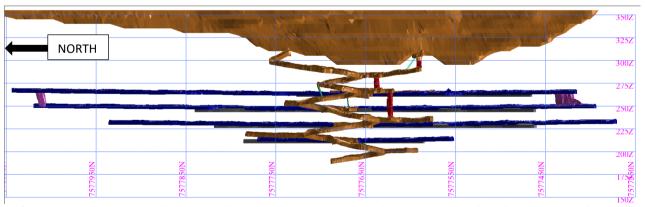


Figure 2: Bartons Underground Project Long Section showing mine development to date (blue).

Underground development has encountered better-than-expected ground conditions, which enabled a revised "top-down" mining approach to access high-grade stope ore ahead of the original 2018 DFS schedule.

The grade of the Bartons Underground has also been lower than planned. The actual first quarter mined grade was 2.4g/t against a planned grade of 4.0g/t representing a 40 percent variance. The grade was negatively impacted by the additional development ore produced (which had a lower grade than the stoping material it displaced), lower-than-planned stoping production and higher-than-planned dilution from the stopes fired.



Delays to stoping caused by additional lateral ore development, outside of the Reserve envelope, has led to delays in the delivery of an optimal stoping cycle. Against the 2018 DFS Schedule, the ore drives on the top two levels have extended 600m, costing an additional \$2.7M. In order to increase the productivity from the underground operations, longer stope panels were mined during the March quarter and are planned to continue to increase production during the June Quarter.

The downside of the longer panels has been a significant increase in dilution. A full review of the stoping process has commenced to return the mine to the original schedule of rapid-turnover short strike panels. In conjunction with reducing the exposed hanging wall length, the shorter panels will reduce the volume of cemented rock fill which is currently diluting the ore. Additional optimisation strategies focused on productivity and efficiency is ongoing in consultation with the Underground Mining Contractor.

# **Sulphide Expansion Project**

The sulphide expansion project is broken into three distinct phases:

- **Stage 1a:** Concentrator and fine grinding circuit (commissioning underway)
- **Stage 1b:** Installation of the INOX process as the concentrate transitions from a pyrite-dominant to a blended pyrite / arsenopyrite ore (commissioning Quarter 4)
- **Stage 2:** Pressurised in-mill oxidation (PINOX) to facilitate processing of arsenopyrite-dominant ore (Expected early 2020 subject to mine schedule)

Construction continued during the quarter as key equipment arrived on site. Commissioning commenced during April and enabled initial concentrate generation to commence by the end of April.

Key achievements for the period included:

- Spiral feed preparation circuit includes de-sliming cyclone, carbon safety screen and water recovery cyclones. Circuit design allowed installation of the new structures using a large portion of existing site structures.
- Spiral installation structure erected and spirals installed along with the installation of requirements for the concentrator circuit.
- Electrical installation Electrical upgrade with additional capacity installed.
- Arrival of the Ultra Fine Grind Mills The two mills have been supplied ceramic-lined and give sufficient capacity to process a combined total of 20tph of concentrates.



**Figure 3.** De-sliming and water recovery cyclone clusters on existing tailings screen



Figure 4. Spiral installation





**Figure 5.** New transformer compound for Sulphide Circuit



Figure 6. Grinding mills arriving on site



Figure 7. Concrete pad area and plinths nearing completion in preparation for mill installation

# Metallurgical test work

Metallurgical test work conducted during the March Quarter delivered positive results, providing further strong evidence that the Company's sulphide expansion strategy will be a technical and economic success.

The latest tests were conducted on a range of pyrite and arsenopyrite ore samples with varying degrees of refractory behaviour from the Golden Eagle deposit, the largest deposit defined to date at Nullagine. The tests completed during the quarter close out the variability testing program with regards to the in-mill oxidation (INOX) process tests. Results are pending for the final mineralogy and gold deportment analysis on selected test feeds and residues to provide further understanding of the process effectiveness and feed material mineralogy.

Additional preliminary tests have been initiated on other ore bodies within the company tenements to provide input to resource definitions in these areas.

Millennium has previously announced that tests conducted on samples of <u>mildly</u> refractory pyrite-dominant ore and moderately refractory pyrite/arsenopyrite samples from Golden Eagle generated recoveries of over 80 per cent using its INOX process (see ASX Announcement 14 January 2019).

The latest results now confirm that gold recoveries of  $\sim$ 70 per cent can be generated from <u>highly</u> refractory arsenopyrite-dominant ore from Golden Eagle using the pressure oxidation (PINOX) process. Previous cyanidation test work on this highly refractory ore delivered gold recoveries averaging less than 30%, meaning this mineralisation has never previously been considered economic. An overview of the INOX test work results across the various ore types is provided in Table 4.

As a result of the exceptional recoveries achieved on arsenopyrite-dominant ore using the PINOX process, Millennium is now planning to undertake a two-stage expansion of the Nullagine processing plant, comprising:

- **Stage 1a:** Concentrator and fine grinding to facilitate processing of pyrite-dominant ore. Capital cost of \$15M, commissioning of the concentrator portion of Stage 1 is now underway with first concentrates produced on schedule by the end of April
- **Stage 1b:** Completion of the addition of the INOX specific equipment to the Concentrator and fine milling package to address the mildly to high refractory ore. This material is scheduled to be processed late Q4 and the equipment will be installed as required to facilitate a transition from the pyrite dominant to the pyrite / arsenopyrite ores. Capital cost of this phase of Stage 1 is \$2-3M
- **Stage 2:** Pressurised in-mill oxidation to facilitate processing of arsenopyrite-dominant ore. Capital cost of \$5M, commissioning mid-2020.

The two-stage plant upgrade will provide strong processing optionality, enabling Millennium to apply a combination of fine grinding, in-mill oxidation and pressurised in-mill oxidation to optimise recoveries and cash flow from different ore types.

Table 4: Metallurgical results based on ore type – leach versus INOX

Sample Classification	Average leach recovery	Average INOX recovery
Highly refractory	34.8%	70.6%
Moderately refractory	63.8%	82.8%
Mildly refractory	86.2%	92.1%

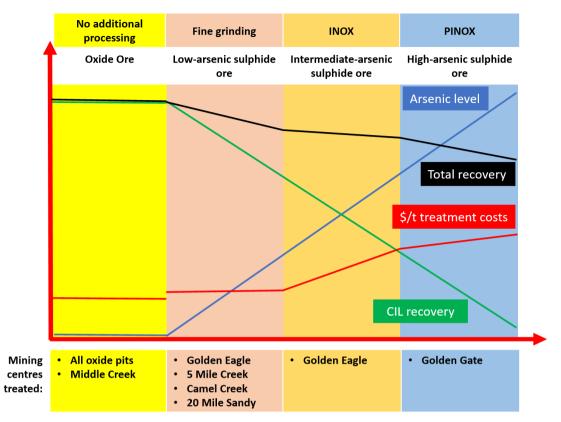


Figure 8: Comparison of processing options and outcomes

# **Exploration**

During the Quarter a total of 247 RC holes were drilled for a total of 22,089 metres. It resulted in high-grade intersections from in-fill and extensional programs at Golden Gate Mining Centre. This work will underpin the Golden Gate underground MRE update and subsequent economic assessment.

## **Drilling**

## Camel Creek Mining Centre

A total of 29 RC holes for 3,082m were drilled at both the All Nations and Little Wonder deposits. This drilling aimed to locate further oxide resources adjacent to All Nations and to scope out the deeper potential beneath both deposits.

## Five Mile Mining Centre

A total of 38 RC holes for 2,694m were drilled to test the early stage Meldrum and Margie oxide targets. Ongoing exploration is being carried out at Margie to define parallel zones of mineralisation. Results for the Meldrum drilling are currently being reviewed.

## Golden Eagle Mining Centre

A total of 32 RC holes for 2,428m were drilled in the Golden Eagle Mining centre to extend the sulphide mineralisation at Au81, test the deeper potential beneath the Golden Eagle deposit and to infill the Bullant prospect. Drilling at the Bullant prospect continued into the June Quarter. Results from the Au81 sulphide drilling and the Golden Eagle deeper drilling will be incorporated into updated MREs.



## Golden Gate Mining Centre

Drilling (109 RC holes for 10,617m) at the Golden Gate Mining Centre is delivering positive results, confirming its potential to form a major mining hub. Based on the high-grade results reported during the March Quarter, Millennium plans to commence development of new open pit mines at Golden Gate in the June 2019 Quarter and a new underground mine during the September 2019 Quarter.

Drilling programs undertaken at Golden Gate during the reporting period were designed to increase both the high-grade open pit and underground Resources, with this area expected to provide an important source of ore for the Company's Sulphide Expansion Project.

## ABC Reef

Further assay results were received from drilling completed in the December 2018 Quarter to test for additional oxide mineralisation as well as testing for sulphidic material at depth. Results received during the Quarter included:

- 10m @ 5.06g/t Au from 94m including 1m @ 16.90g/t Au from 97m and 1m @ 7.78g/t Au from 103m.
- 9m @ 4.59g/t Au from 102m including 3m @ 10.71g/t Au from 105m (ABCRD036).
- 9m @ 2.42g/t Au from 48m including 4m @ 4.56g/t Au from 52m (ABCRD046).
- 4m @ 3.67g/t Au from 14m including 1m @ 6.48g/t Au from 15m (ABCRD042).

In addition, a further two drill holes were completed at ABC Reef to improve confidence in the extent of the high-grade mineralisation. Highlights from these drill holes include:

4m @ 7.64g/t Au from 158m including 3m @ 9.58g/t Au (ABCRD067).
 6m @ 1.68g/t Au from 165m including 1m @ 7.52g/t Au (ABCRD066).

#### Crou

Assay results were reported for drilling completed in the December Quarter, with highlights including:

- 4m @ 3.80g/t Au from 159m including 2m @ 6.87g/t Au (CROWRD0082).
- 4m @ 3.72q/t Au from 40m including 1m @ 11.6q/t Au (CROWRD0086).
- 4m @ 2.62g/t Au from 141m (CROWRD0084).

A further three drill holes were completed at Crow during the March Quarter on nominal 60m spacings to test extensions to the known mineralisation. Significant new intersections from Crow included:

6m @ 3.43g/t Au from 84m (CROWRD0097).

### D Reef

Assay results were reported for drilling completed in the December Quarter, with highlights including:

- 16m @ 7.06g/t Au from 87m including 6m @ 16.60g/t Au from 94m (DRRD0027).
- 15m @ 4.83g/t Au from 70m including 2m @ 7.56g/t Au from 70m and 3m @ 13.26g/t Au from 77m (DRRD0021).

A nominal 20m  $\times$  20m program was completed at D Reef during the March Quarter to infill the potential whittle open pit shell for the sulphide mineralisation. New results from the two drill holes completed at D Reef include:

- 2m @ 5.14g/t Au from 89m including 1m @ 6.91g/t Au (DRRD0023).
- 5m @ 8.82g/t Au from 94m (DRRD0023).
- 15m @ 1.96g/t Au from 72m including 1m @ 5.58g/t Au (DRRD0022).



#### Condor

Assay results were reported for drilling completed in the December Quarter, with highlights including:

- 5m @ 5.52g/t Au from 38m (CORD091).
- 6m @ 4.07g/t Au from 174m including 3m @ 6.51g/t Au (CORD135).
- 3m @ 5.16g/t Au from 183m and 1m @ 11.7g/t Au (CORD135).
- 6m @ 3.92g/t Au from 137m including 2m @ 6.39g/t Au from 139m (CORD130).
- 5m @ 2.9g/t Au from 26m including 1m @ 5.37g/t Au from 26m and 1m @ 5.85g/t Au from 30m (CORD090).
- 3m @ 2.81g/t Au from 192m (CORD136).

New drilling at Condor was completed to target the strike and depth extensions of the known mineralisation. Results from the current drilling include:

- 4m @ 5.43g/t Au from 25m including 2m @ 9.96g/t Au (CORD140).
- 11m @ 3.19g/t Au from 181m including 2m @ 6.48g/t Au from 183m and 1m @ 6.39g/t Au from 190m (CORD143).
- 8m @ 2.70g/t Au from 45m including 2m @ 7.17g/t Au (CORD141).

Additional drilling is now underway to infill the current mineralisation interpretation and to test the open potential extensions of the mineralisation. The drilling results from Golden Gate will used to update the Resource and Reserve models ahead of the planned commencement of mine development in the September 2019 Quarter.

## Twenty Mile Mining Centre

A total of 24 RC holes for 1,482m were drilled to scope out high-grade oxide potential at the Cutlass and Cutty Sark prospects. The orientation of mineralisation at both prospects was confirmed with further assessments on the likelihood to host economic deposits to be carried out.

#### Middle Creek Mining Centre

# Bartons Underground

A total of 8 RC holes for 990m were completed to scope out another potential ore shoot on the northern portion of the main lode. The results from this drilling will be incorporated into an updated MRE. Results from drilling that was conducted during the December 2018 Quarter at Bartons Underground were received. This drilling was designed to in-fill deeper portions of the Mineral Resources and allow conversion of the next five development levels to Ore Reserves. With the underground resource remaining open at depth, the drilling also tested for extensions of the deposit to a depth of 200m below the previously defined Mineral Resources.

The drilling program was successful, returning a number of significant high-grade intercepts well beyond the interpreted boundary of the mineralisation.

Significant results received to date from the drilling are shown below. True widths (TW) are shown in brackets after the down-hole interval:

- 3.32m (2.9m TW) @ 14.09g/t Au from 151.4m including 2.72m (2.4m TW) @ 16.62g/t Au from 152m (BUDD0001).
- 8.1m (3.8m TW) @ 5.23g/t Au from 213.9m including 2.4m (1.1m TW) @ 9.23g/t Au from 216.6m (BUDD0020).
- 8m (3.6m TW) @ 3.69g/t Au from 95m including 1.15m (0.5m TW) @ 13.55g/t Au from 100m (BUDD0011A).
- 6m (3.1m TW) @ 6.71g/t Au from 147m including 5m (2.6m TW) @ 7.59g/t Au from 147m (BUDD0021).
- 6.6m (3.0m TW) @ 3.14g/t Au from 111m including 1m (0.4m TW) @ 10.85g/t Au from 114.4m (BUDD0003).



- 5.3m (2.7 m) @ 2.90g/t Au from 115.7m including 1.19m (0.6m TW) @ 5.62g/t Au from 118.56m (BUDD0005).
- 2.67m (1.6m TW) @ 4.92g/t Au from 64.73m including 1m (0.8m TW) @ 6.82g/t Au from 66.4m (BUDD0026).
- 3.2m (1.4m TW) @ 4.00g/t Au from 143.6m including 0.95m (0.4m TW) @ 6.45g/t Au from 145.85m (BUDD0032).
- 6m (1.9m TW) @ 2.58g/t Au from 141m (BUDD0007).
- 6m (1.4m TW) @ 3.48g/t Au from 145m (BUDD0008).
- 3.35m (1.6m TW) @ 3.27g/t Au from 159.65m including 1m (0.5m TW) @ 5.17g/t Au from 161m (BUDD0018).
- 4m (1.8m TW) @ 2.69g/t Au from 128m including 1m (0.5m TW) @ 5.50g/t Au from 128m (BUDD0022).

## Bartons North

A total of seven RC holes for 796m were completed to follow up on an early-time Electromagnetic (EM) anomaly that had coincident gold anomalism from previous RAB drilling. This drill program is ongoing with seven holes for 834m remaining to be drilled.

# **Planned Activities for the June Quarter**

The focus during the June Quarter will be on completing the re-optimised mine schedule for the Nullagine Project to minimise dilution and maximise head grade.

In addition, commissioning of the Stage 1 sulphide plant upgrade will be completed, which will enable the Company to treat pyrite-dominant sulphide ore.

Open pit mine development is also scheduled to commence at the Golden Gate Mining Centre to ramp up the production of sulphide material.

Exploration programs will focus on delineating the underground potential at Golden Gate, defining potential high-grade oxide targets and early stage work to expand the exploration pipeline.

#### **ENDS**

For further information, please contact: Peter Cash – Chief Executive Officer +61 8 9216 9011 For media inquiries, please contact: Kate Bell / Nicholas Read – Read Corporate +61 8 9388 1474



## Competent Persons Statement - Exploration Results

The information relating to exploration results from the Nullagine project is extracted from the announcements titled:

- 1. First high-grade ore exposed at Bartons following outstanding progress with underground development dated 13 August 2018;
- 2. Millennium makes key exploration breakthrough at Nullagine dated 27 August 2018;
- 3. Outstanding new high-grade results of up to 54.9 g/t transform outlook for Golden Eagle dated 10 September 2018;
- 4. Millennium achieves 100,000ozpa production run-rate at Nullagine ahead of schedule dated 11 September 2018;
- 5. New high-grade intercepts of up to 42.35g/t upgrade discovery potential at Golden Eagle SW dated 17 September 2018;

all of which are available to view at www.millenniumminerals.com.au.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements relating to the drill results and that all material assumptions and technical parameters underpinning the drill results in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings as presented here have not been materially modified from the original market announcement.

## **Qualifying Statement**

This report 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 report or to reflect the circumstances or events after the date of this report.

## Notes

- All-In Sustaining Cost (AISC) per ounce sold represents: C1 Cash Costs, corporate administration costs related to operations, royalties, sustaining capital, rehabilitation and reclamation accretion, and production stripping adjustments. It does not include expansionary development costs, including the sulphide plant expansion study, Open Pit and Underground pre-production costs, corporate development costs, tenement acquisition expenditure, or exploration and evaluation expenditure.
- <sup>2</sup> C1 cash cost represents the costs for mining, processing, administration, by-product credits, royalties and accounting adjustments for movements in mining inventories. It does not include capital expenditure, exploration, tenement management and corporate administration costs.

Unless otherwise denoted all currency units are Australian dollars.

All data provided is unaudited.