

Level 11, 52 Phillip St Sydney NSW 2000 P: +61 2 8316 3997 F: +61 2 8316 3999 Info@silvermines.com.au www.silvermines.com.au

#### 31 October 2019

Company Announcement Officer ASX Limited Exchange Centre 20 Bridge Street SYDNEY NSW 2000

## ACTIVITIES REPORT FOR THE QUARTER ENDED 30 September 2019

#### **HIGHLIGHTS**

#### **Bowdens Silver Project**

- Positive preliminary environmental assessment outcomes.
- Environmental Impact Statement (EIS) in the final stages before submission for Development Consent.
- In exploration, gravity survey completed with analysis being finalised in lead up to a deeper drilling program.

#### **Barabolar Project**

- Drilling intersected gold and base-metal mineralisation and high temperature alteration minerals suggestive of proximity to intrusive source.
- Gravity surveying has been completed and is currently being analysed.
- Deep drill planning advanced with regional soil sampling expanding to the west of the Barabolar Corridor.

#### **Tuena Gold Project**

- Substantial gold in soil anomalism over a 5.4km by 1.5km corridor including:
- Airborne magnetics and radiometrics survey commencing shortly.
- A further 634 square kilometres of licence applications submitted.

#### Corporate

**Silver Mines Limited** 

• Placements of shares conducted to institutional, professional and sophisticated investors raising \$12.75 million.



#### **Bowdens Silver Project**

During the September 2019 quarter, Silver Mines Limited (ASX:SVL) ("Silver Mines" or "the Company") continued with the finalisation of the Environmental Impact Statement ("EIS") for the proposed development of the Bowdens Silver Project located approximately 26 kilometres east of Mudgee in the Central Tablelands Region of New South Wales.

The Bowdens Silver Project is the largest undeveloped silver deposit in Australia and lies within Exploration Licence 5920 which is 100% held by the Company (See Figure 1).

Bowdens Silver comprises an open-cut mine feeding a new processing plant comprising a conventional milling circuit and differential flotation to produce two concentrates that will be sold for smelting off site. Plant capacity is designed for 2.0 million tonnes per annum with a project life of 17 years. Life of mine production is planned to be approximately 53 million ounces of silver, 116,000 tonnes of zinc and 83,000 tonnes of lead.

The Company is in the final stages of completing the EIS and expects to lodge to the NSW Department of Planning and Environment in the coming months. A Mining Lease application and a Development Application (DA) will be lodged in conjunction with the EIS.

During the June 2019 quarter the Company reported results from preliminary key components of the EIS with positive outcomes (Refer to ASX release of 21<sup>st</sup> June 2019). In the release, Managing Director Anthony McClure, stated "Baseline environmental data capture at Bowdens has been ongoing for approximately eight years so we have a comprehensive dataset to draw from. Since acquiring the project in mid-2016, we have progressed with a methodical de-risking and we are delighted to announce that the preliminary key components of the EIS have been successfully determined with particularly favourable outcomes."

#### **Government and Community Engagement**

Silver Mines continues an extensive program of consultation with relevant Government departments, local communities, and other interested stakeholders. The program examines the potential impacts and benefits of exploration and development across the substantial Bowdens Silver tenement portfolio. Consultation processes focus on the current potential mine development area and the wider area where the Company is commencing or undertaking exploration programs.

#### **Bowdens Project Exploration**

During the September quarter a detailed ground-based gravity geophysical survey was completed over the Bowdens Silver regional project area. The purpose of the survey was to assist in establishing regional structural controls on mineralised trends and to search for possible mineralised heat-sources, such as buried intrusive (porphyry) centres. A deep drilling program is being planned to target intrusive system responses and "Bowdens Analogue" responses from the results of the gravity survey, which will be integrated with the current database of high quality technical data. The data is currently being modelled and analysed.



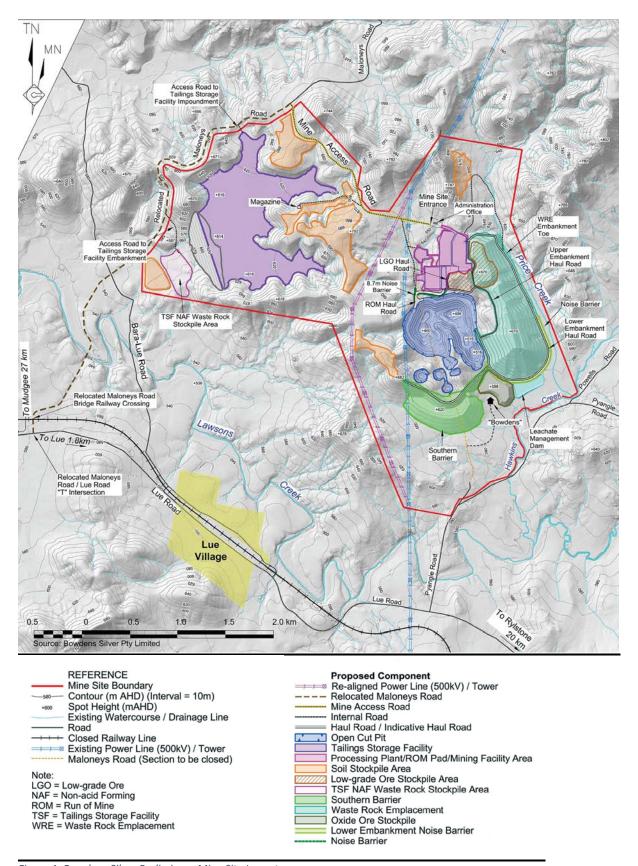


Figure 1. Bowdens Silver Preliminary Mine Site Layout.



#### **About the Bowdens Silver Project**

The Bowdens Silver Project is located in central New South Wales, approximately 26 kilometres east of Mudgee (See Figure 3). The consolidated project area comprises 2,007 km² (496,000 acres) of titles covering approximately 80 kilometres of strike of the highly mineralised Rylstone Volcanics. Multiple target styles and mineral occurrences have potential throughout the district including analogues to Bowdens Silver, high-grade silver-lead-zinc epithermal and volcanogenic massive sulphide (VMS) systems and copper-gold targets.

Bowdens Silver is the largest undeveloped silver deposit in Australia and one of the largest globally with substantial resources and a considerable body of high quality technical work completed. The projects boast outstanding logistics for future mine development.

#### **Barabolar Project**

During the September 2019 quarter, the Company continued to review exploration drilling results from the first round of drilling at the Cringle and Kia Ora West prospects. Cringle and Kia Ora West lie within the Barabolar Project, which is located approximately 26 kilometres east of Mudgee in central New South Wales and 10 kilometres northwest of the Company's Bowdens Silver Project.

The drilling program consisted of seven reverse circulation (RC) holes for a total of 1,386 metres at Cringle, and two RC holes with one diamond tail for 475 metres at Kia Ora West (refer to Table 1 and Table 2). Drilling at Cringle targeted multiple gold-silver high-grade rock chip samples and associated strong arsenic anomalism in soils, while at Kia Ora West, drilling was targeting a strong IP chargeability anomaly coincident with a copper anomaly in soils.

#### **Cringle Prospect Drilling**

Drilling results from the Cringle Prospect were reported during the June 2019 quarter. This work confirmed that mineralisation is widespread with multiple structures undergoing hydrothermal activity and deposition of quartz and sulphides. A large arsenic anomaly to the northwest of the Cringle drilling has been mapped and sampled in preparation for future drilling (refer to ASX release of 13<sup>th</sup> June 2019).

These drill results indicate that mineralisation in the Cringle area is related to a heat-source that is generating mineralised hydrothermal fluids. This heat-source is likely an intrusive such as a porphyry. Based on structural geological analysis, along with a review of metal zoning, this source is most likely beneath and to the west of Cringle.

#### **Kia Ora West Prospect Drilling**

Drilling results from the Kia Ora West Prospect were reported during the June 2019 quarter. This work successfully intersected a zone of ~80 metres of high temperature skarn dominated by garnet alteration within BAR19009. The skarn coincided with a strong geophysical chargeability anomaly and resistivity anomaly, and was consistently mineralised with trace chalcopyrite.

Importantly, diamond drilling of the skarn showed multiple generations of hydrothermal events with at least 3 generations of vein sets, high temperature alteration assemblages indicative of



proximity to heat source, likely a porphyry intrusion, and that the skarn is fault bounded on both the hanging wall and footwall indicating dislodgement from an original location. The Kia Ora skarn appears to dip to the west and, similarly to the observations at Cringle, provide vectors for targeting a mineralised porphyry at depth.

#### **Exploration Program**

During the September 2019 quarter, exploration work continued to expand at the Barabolar Project area with a regional soil sampling program commenced to the west of the Mt Laut Pyrophyllite alteration zone, and west of the Cringle Prospect. This area has had limited previous exploration and is dominated by andesitic volcanics and volcaniclastics of Ordovician age. Multiple alluvial gold occurrences are situated within drainage channels sourced from the area including the Pipeclay and Budgee Budgee workings. The source of this gold is postulated to be related to the hydrothermal activity observed within the Project such as at the Mt Laut Pyrophyllite zone.

During the September 2019 quarter, a broad project wide gravity survey commenced to assist in defining structure throughout the region, especially the Mt Bara Thrust Fault, and to identify buried source intrusions. As at the date of this report, data acquired from the gravity survey continued to be modelled and analysed. Multiple NSW Macquarie Arc porphyry deposits, such as Northparkes and the Lake Cowal District, have associated gravity responses.

Subject to results from the regional soils program and the completion of the analysis on gravity data, an expanded drilling program of up to 4000 metres will be planned. This program will have the intention of targeting major porphyry related mineral systems at depth.

The rocks of the Barabolar Project area are Ordovician age (the same age as the giant Cadia-Ridgeway porphyry copper-gold project located near Orange, NSW) and include sedimentary and volcanic rocks, an extensive skarn (highly altered microdiorite), and several porphyritic intrusions (See Figure 2). The presence of pyrophyllite alteration along with areas of intensive silicification, and argillic alteration are indicative of high-sulphidation epithermal systems consistent with copper-gold porphyry targets and peripheral low-sulphidation epithermal targets.



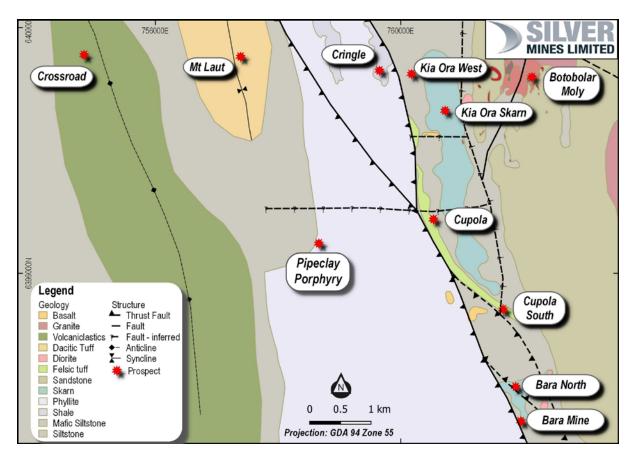


Figure 2. Barabolar Project geology with prospects

#### **About the Barabolar Project**

The Barabolar Project is located in central New South Wales, approximately 26 kilometres east of Mudgee (See Figure 3). The consolidated area comprises 2,007 km² (496,000 acres) of titles covering approximately 80 kilometres of strike of the highly mineralised Rylstone Volcanics and Macquarie Arc. Multiple target styles and mineral occurrences have potential throughout the district including analogues to Bowdens Silver, high-grade silver-lead-zinc epithermal and volcanogenic massive sulphide (VMS) systems and porphyry and skarn hosted copper-gold-molybdenum targets.



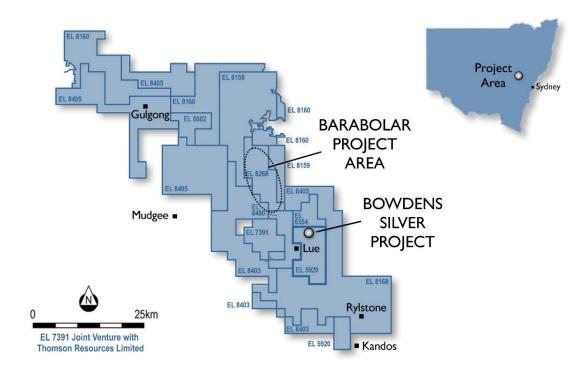


Figure 3. Silver Mines Limited tenement holdings in the Mudgee district.



#### **Tuena Gold Project**

During the September 2019 quarter, the Company continued with geological reconnaissance work and program planning at the highly prospective Tuena Gold Project (EL8526) located in the Southern Tablelands of New South Wales. The Project is a regional exploration project that consists of a single exploration license covering approximately 175 square kilometres. Subsequent to the end of the quarter the Company provided an update on exploration activities (refer to the ASX release of 23<sup>rd</sup> October 2019).

The Tuena Gold Project consists of an extensive series of historic hard-rock and alluvial gold mines which operated from the 1850s until the early 1900s. Records of production state that the Lucky Hit Mine, for example, produced at grades of 61g/t gold (NSW Government database).

Mineralisation, as indicated by historic shafts and adits, can be mapped over several kilometres of strike. The Tuena Gold Project is situated at the southern end of the highly prospective Hill End Trough within volcanic and sedimentary rocks of Silurian and early Devonian age. Mineralisation occurs within splay/horsetail structures associated with an inflection in the Copperhania/Lake George Thrust Faults. This structure is the continuation of the major Godolphin Fault, which is closely associated with mineralisation at the multi-million ounce McPhillamys gold project located 60 kilometres to the north (See Figure 4). The Company is exploring for both orogenic gold and volcanogenic massive sulphide gold+base metal systems.

During the September 2019 quarter, the Company expanded its area of interest in the Tuena district with a further 634 square kilometres of ground under licence application (See Figure 4). The Company is targeting the region for large structurally controlled gold deposits analogous to the nearby McPhillamys Gold Deposit.

#### **Work Program Completed**

The Company completed a second phase of soil sampling at Tuena. This program follows from an earlier reconnaissance soil sampling on small 40 metre by 40 metre grids that revealed anomalism related to the known historic workings (refer to release dated 26<sup>th</sup> March 2019). The second phase consists of approximately 1600 samples at a nominal grid of 50 by 200 metres (See Figures 6, 7 and 8).

The recently completed soil sampling program has indicated that gold anomalism >8ppb can be traced along several geological structures over a strike length of 5.4 kilometres within a corridor of mineralisation up to 1.5 kilometres wide. As well as extensive gold anomalism, arsenic anomalism also successfully maps the system and is an important pathfinder element. In addition to the soil sampling, Company geologists have also conducted a first pass reconnaissance mapping and rock sampling program.

Several individual prospects show extensive higher-tenor gold anomalism. The Peeks Prospect, for example, shows gold in soil anomalism >25ppb, and up to 268ppb with a coincident arsenic anomaly. Mapping of historic workings at the Peeks Prospect reveals both steeply dipping quartz veins 30 to 50 cm in width as well as stacked shallowly dipping veins. A single rock sample of a shallowly dipping vein returned an assay result of 76.4g/t gold. The Cooper & McKenzie Prospect is defined over 850 metres of strike length with a >25ppb gold in soil anomaly with a peak value of 1550ppb gold (1.55g/t). Single point gold in soil assays



from the eastern prospects returned up to 4220ppb gold (4.22g/t) and 2660ppb gold (2.66g/t) and whilst these results were not replicated on soil lines to the north and south, the arsenic anomalism indicates a target that is >500 metres in strike length. A 1.7 kilometre long mineralised trend, defined by soil anomalism >8ppb extends from the Lucky Hit historic workings to the Golden Dyke South workings and remains open towards the Golden Dyke main workings (infill sampling pending) some 800 metres further north.

The Company is currently in the advanced stages of planning an airborne magnetic and radiometric survey. This survey will cover the entirety of EL8526 and aid in mapping of magnetite-hematite bodies which are proximal to mineralised shear zones and also provide confirmation of the controlling structures.

Following the completion of the programs underway, the Company will plan the first round of exploration drilling on this project.



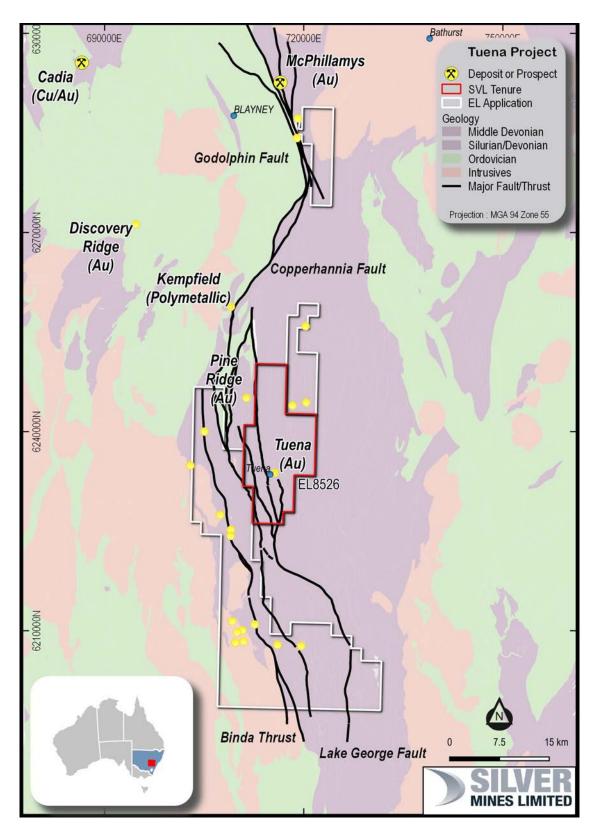


Figure 4. Tuena Project location with regional geology and major deposits.



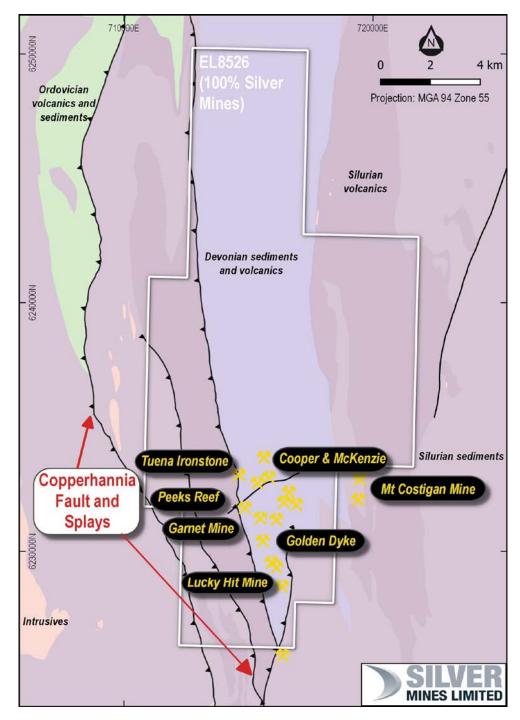


Figure 5. General geology and prospect map of EL8526 showing historic gold working locations.



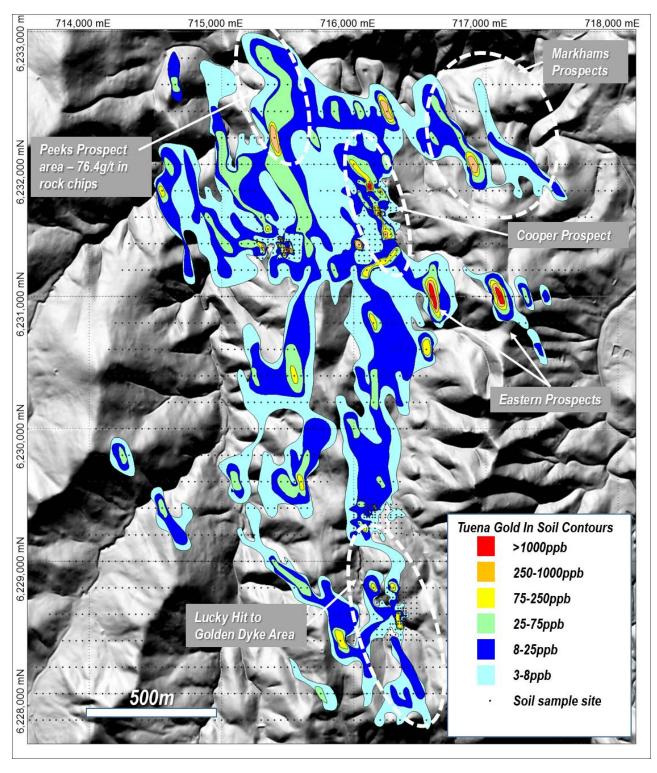


Figure 6 Tuena Gold Project Soil Sampling Contours by Gold



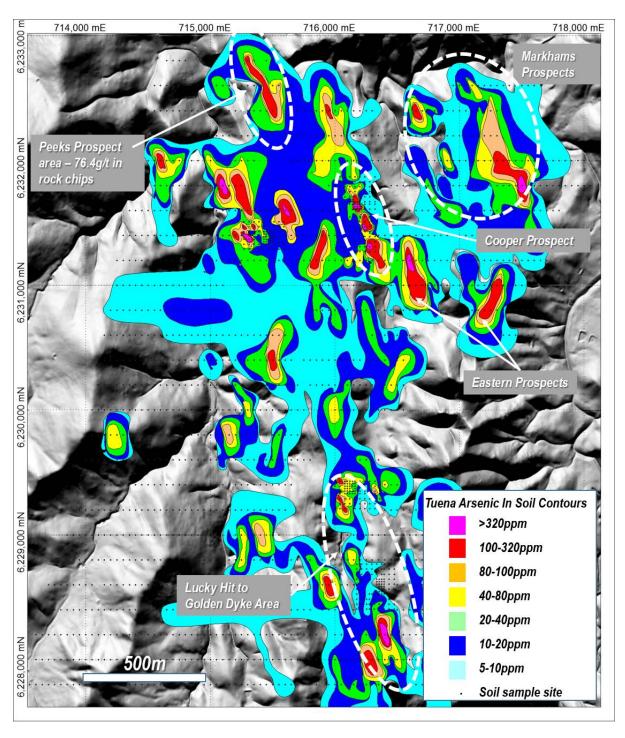


Figure 7 Tuena Gold Project Soil Sampling contours by Arsenic



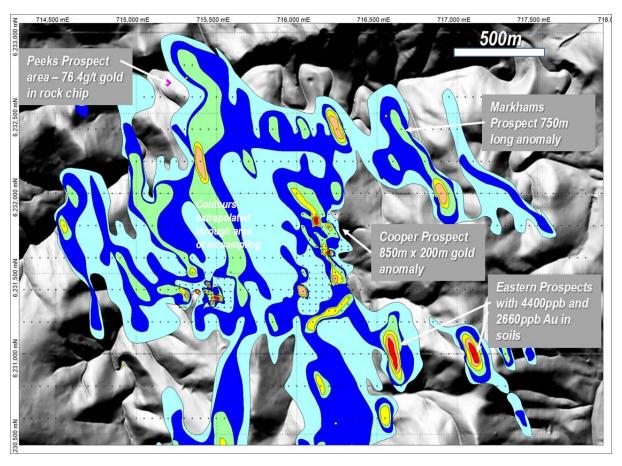


Figure 8 Northern anomalies, zoomed in soil contours by gold (refer Figure 3 above for legend)



#### **About the Tuena Project**

The Tuena Gold Project is a regional exploration project that consists of a single exploration license covering approximately 175 square kilometres. The project is 100% owned by Silver Mines Limited and is located in the Southern Tablelands of NSW, 180 kilometres west of Sydney, 80 kilometres south of Orange and 150 kilometres southwest of the Company's primary assets the Bowdens Silver Project and the Barabolar Project. Tuena was the site of a mid-1800s alluvial and hard-rock gold rush. A cluster of historic workings closely associated with the major Copperhania Thrust Fault extend over an area approximately six kilometres by four kilometres. The Company has recently expanded its area of interest in the Tuena district with a further 634 square kilometres under application. The Company is targeting the region for large structurally controlled gold deposits analogous, perhaps, to the nearby McPhillamys Gold Deposit.

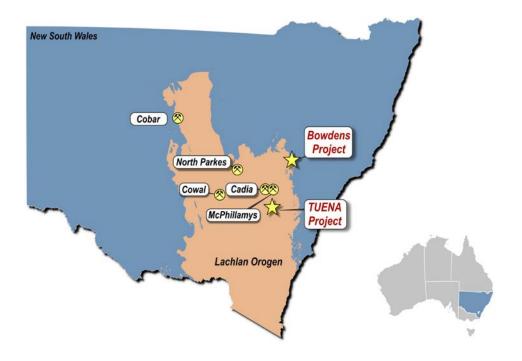


Figure 9. Silver Mines Ltd Projects in New South Wales.



#### **Other Projects**

During the September 2019 quarter, the Company continued environmental remediation work at the Webbs and Conrad areas in New South Wales. The Company continues to assess exploration options and other options for these prospective projects.

#### **Research and Development Update**

The Company has an active research and development ("R&D") program to better map and understand the Permian volcanics and basement Palaeozoic (Ordovician and Silurian) rocks of the Company's exploration licenses. The R&D programs have been led by the Company's Geoscientific Data Scientist, Mr David Biggs; Project Geologist, Mr Tom Klein, and have been overseen by an advisor to the Company, Dr Darren Holden. The R&D programs are on-going and have, over the past three years, involved collaboration with researchers from the University of Technology Sydney, the University of New South Wales and Macquarie University. Several industry consultants and data collection contractors have also assisted in analysing and providing base datasets for the R&D program.

The R&D project involves developing innovative new technology and processes and includes geological studies on the Bowdens Silver Deposit and particularly the basement rocks and the search for a porphyry source. In addition, site-specific research has been conducted on the Barabolar Project area and elsewhere in the Company's portfolio. The Company has developed and continues to develop new technologies for multivariate geochemical analysis; automated mapping of geology from geochemistry data; and predictive geochemistry modelling using machine learning techniques. These R&D programs have developed further hypotheses for mineralisation in areas such as basement rocks beneath the main volcanic host at the Bowdens Silver Deposit; Bowdens northern and north-westerly extensions; and several targets in the Barabolar Corridor including the Cringle prospect area. Much of the Company's exploration drilling is considered as a test of our R&D technologies and processes.

During the September 2019 quarter, the development and application of the machine learning predictive geochemistry technology continued. The Company is now establishing programs to test its machine learning technologies on targeting outside of the Bowdens-Barabolar district to establish if such technologies are applicable to other geological domains. In particular, the Tuena Gold Project has a multi-element association of gold mineralisation along with complex structure, established through analysis of elevation and geophysical datasets. The main southern area of the Tuena Gold Project has gentle rolling hills and ready access, yet the balance of the project is in rugged terrain requiring further access to be established. As such, the Company is looking to modify its developed multivariate geochemical analysis; automated mapping of geology from geochemistry data; and predictive geochemistry modelling using machine learning techniques; to regional target generation within the district (inclusive of further areas currently under licence application).

#### **Corporate Update**

On 5<sup>th</sup> July 2019, the Company announced that it had conducted a placement to institutional, professional and sophisticated investors, with Patersons Securities Limited acting as Lead Manager. The Placement was fully subscribed and conducted at an issue price of \$0.05 per



share, raising \$2.75 million (before costs), via the issue of 55,000,000 shares and 27,500,000 options, exercisable at \$0.06 and expiring on 6<sup>th</sup> September 2021.

On 9<sup>th</sup> September 2019, the Company announced that it had conducted a placement to institutional, professional and sophisticated investors, with Patersons Securities Limited acting as Lead Manager. The Placement was fully subscribed and conducted at an issue price of \$0.10 per share, raising \$10.0 million (before costs), via the issue of 100,000,000 shares.

The Placements saw the introduction of well-regarded resources institutional shareholder Sprott Asset Management LP of Canada.

The funds raised under the Placements will be primarily used for funding exploration at the Bowdens Silver, Barabolar and Tuena Projects, the completion of EIS for the Bowdens Silver Project, associated land acquisitions and for corporate and general working capital purposes.

#### **Further information:**

Anthony McClure

Managing Director

Silver Mines Limited

+61 2 8316 3997

Luke Forrestal

Associate Director

M+C Partners

+61 411 479 144

#### **About Silver Mines Limited**

The Silver Mines strategy has been to consolidate quality silver deposits in New South Wales and to form Australia's pre-eminent silver company.

The Company's goal is to provide exceptional returns to shareholders through the acquisition, exploration and development of quality silver projects and by maximising leverage to an accretive silver price.



#### **Competent Persons Statement**

The information in this report that relates to mineral exploration from the Barabolar & Tuena projects is based on information compiled by the Bowdens Silver team and reviewed by Mr Darren Holden who is an advisor to the Company. Mr Holden is a member of the Australasian Institute of Mining and Metallurgy and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration, and to the activity being undertaken, 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' (JORC code). Mr Holden consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

This report contains information extracted from previous ASX releases which are referenced in the report and which are available on the Company's website and the ASX website. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original ASX announcements.



### **Tenement Information as at 30 September 2019**

| Tenement             | Project Name   | Location | Silver Mines<br>Ownership | Change in<br>Quarter |
|----------------------|----------------|----------|---------------------------|----------------------|
|                      |                |          |                           |                      |
| EL 5920              | Bowdens Silver | NSW      | 100%                      | -                    |
| EL 6354              | Bowdens Silver | NSW      | 100%                      | -                    |
| EL 8159              | Bowdens Silver | NSW      | 100%                      | -                    |
| EL 8160              | Bowdens Silver | NSW      | 100%                      | -                    |
| EL 8168              | Bowdens Silver | NSW      | 100%                      | -                    |
| EL 8268              | Bowdens Silver | NSW      | 100%                      | -                    |
| EL 7391 <sup>1</sup> | Bowdens Silver | NSW      | 0%                        | -                    |
| EL 8403              | Bowdens Silver | NSW      | 100%                      | -                    |
| EL 8405              | Bowdens Silver | NSW      | 100%                      | -                    |
| EL 8480              | Bowdens Silver | NSW      | 100%                      | -                    |
| EL 8682              | Bowdens Silver | NSW      | 100%                      | -                    |
| EL 8526              | Tuena          | NSW      | 100%                      | -                    |
| EL 5674              | Webbs          | NSW      | 100%                      | -                    |
| EPL1050              | Conrad         | NSW      | 100%                      | -                    |
| EL 5977              | Conrad         | NSW      | 100%                      | -                    |
| ML 6040              | Conrad         | NSW      | 100%                      | -                    |
| ML 6041              | Conrad         | NSW      | 100%                      | -                    |
| ML 5992              | Conrad         | NSW      | 100%                      | -                    |

<sup>1.</sup> Under Joint Venture with Thomson Resources Limited. Silver Mines Limited earning 80%.



Table 1. New drill collar locations with results received for all holes.

| Prospect        | Hole ID  | GDA94<br>East | GDA94<br>North | RL<br>(m) | Dip | Azimuth<br>(grid) | Depth<br>(m) | Drill Type           | Comment            |
|-----------------|----------|---------------|----------------|-----------|-----|-------------------|--------------|----------------------|--------------------|
| Kia-Ora<br>West | BAR19001 | 760118        | 6398562        | 643.18    | -60 | 57                | 140          | RC                   | Assays<br>received |
| Cringle         | BAR19002 | 759442        | 6399273        | 638.00    | -55 | 165               | 192          | RC                   | Assays<br>received |
| Cringle         | BAR19903 | 759303        | 6399335        | 616.75    | -55 | 166               | 192          | RC                   | Assays<br>received |
| Cringle         | BAR19004 | 758877        | 6399253        | 626.69    | -55 | 153               | 192          | RC                   | Assays<br>received |
| Cringle         | BAR19005 | 759148        | 6399213        | 627.00    | -55 | 156               | 192          | RC                   | Assays<br>received |
| Cringle         | BAR19006 | 759604        | 6399406        | 647.00    | -55 | 209               | 210          | RC                   | Assays<br>received |
| Cringle         | BAR19007 | 759533        | 6399256        | 661.48    | -55 | 201               | 210          | RC                   | Assays<br>received |
| Cringle         | BAR19008 | 759625        | 6399194        | 661.97    | -55 | 190               | 198          | RC                   | Assays<br>received |
| Kia Ora<br>West | BAR19009 | 760041        | 6399259        | 615.86    | -60 | 94                | 335.2        | RC with diamond tail | Assays<br>received |



Table 2. Significant assays from drilling of holes BAR19001 to BAR19009.

| Hole ID   | Metre<br>From | Metre To | Interval<br>(m) | Au<br>(g/t) | Ag<br>(g/t) | Cu<br>(%) | Pb<br>(%) | Zn<br>(%) |
|-----------|---------------|----------|-----------------|-------------|-------------|-----------|-----------|-----------|
| BAR19001  | NSR           |          |                 |             |             |           |           |           |
| BAR19002  | 94            | 99       | 5               | 0.42        | 1.94        | 0.019     | 0.009     | 0.018     |
| including | 95            | 96       | 1               | 0.67        | 3.3         | 0.023     | 0.014     | 0.025     |
| including | 97            | 98       | 1               | 0.71        | 1.6         | 0.014     | 0.016     | 0.028     |
|           | 105           | 106      | 1               | 0.18        | 1.2         | 0.01      | <0.01     | 0.015     |
|           | 129           | 130      | 1               | 0.24        | 0.8         | 0.01      | <0.01     | 0.069     |
| BAR19003  | 67            | 75       | 8               | <0.01       | 5.1         | 0.013     | 0.39      | 0.35      |
| including | 67            | 68       | 1               | <0.01       | 4           | 0.013     | 0.76      | 0.55      |
| including | 74            | 75       | 1               | 0.11        | 24.1        | 0.012     | 0.26      | 0.16      |
|           | 150           | 151      | 1               | 0.15        | <0.5        | <0.01     | <0.01     | 0.012     |
| BAR19004  | 63            | 64       | 1               | 0.34        | <0.5        | <0.01     | <0.01     | 0.014     |
|           | 65            | 66       | 1               | 0.27        | <0.5        | <0.01     | < 0.01    | 0.012     |
|           | 143           | 144      | 1               | 0.14        | 10.9        | 0.062     | 0.018     | 0.032     |
|           | 156           | 157      | 1               | 0.14        | 4.6         | 0.1       | <0.01     | <0.01     |
|           | 164           | 165      | 1               | 0.02        | 4           | 0.1       | 0.029     | 0.029     |
|           | 170           | 171      | 1               | 0.11        | <0.5        | <0.01     | < 0.01    | 0.03      |
| BAR19005  | 76            | 77       | 1               | 0.05        | 4.3         | 0.013     | 0.27      | 0.21      |
|           | 101           | 102      | 1               | 0.02        | 17          | 0.021     | 0.87      | 1.44      |
| BAR19006  | NSR           |          |                 |             |             |           |           |           |
| BAR19007  | 75            | 81       | 6               | 0.43        | 2.25        | 0.018     | 0.019     | 0.043     |
| including | 79            | 80       | 1               | 1.18        | 5.2         | 0.042     | 0.02      | 0.026     |
|           | 135           | 137      | 2               | 0.065       | 4.3         | 0.063     | 0.13      | 0.16      |
| BAR19008  | NSR           |          |                 |             |             |           |           |           |
| BAR19009  | 28            | 29       | 1               | 0.17        | <0.5        | 0.019     | <0.01     | 0.035     |
|           | 54            | 55       | 1               | 0.17        | <0.5        | 0.01      | <0.01     | <0.01     |
|           | 279.2         | 279.8    | 0.6             | <0.01       | 4           | <0.01     | 0.1       | 0.1       |

Note: NSR = No Significant Results.



Level 11, 52 Phillip St Sydney NSW 2000 P: +61 2 8316 3997 F: +61 2 8316 3999 Info@silvermines.com.au www.silvermines.com.au

## Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

| Criteria               | JORC Code explanation  | Commentary   |
|------------------------|--|--|
| Sampling<br>techniques | <ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 30g 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.</li> </ul> | <ul> <li>Assay results and related comments in the body of this report relate to soil sampling and rock chips from the Tuena Gold Project.</li> <li>A field soil sample of approximately 1 kilogram is collected from the 'C' horizon and placed in a calico bag and assigned a sample number. It is transported directly to ALS in Orange.</li> <li>Rock chip sampling was undertaken with a geologist hammer to collect adequate sample for assay, up to 1.5 kilograms. The sample was then placed in calico bags and assigned a sample number. Samples returned to the Bowdens Silver office in Lue before being transported to ALS in Orange.</li> </ul> |
| Drilling<br>techniques | <ul> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary<br/>air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter,<br/>triple or standard tube, depth of diamond tails, face-sampling bit or<br/>other type, whether core is oriented and if so, by what method, etc).</li> </ul>  | No new Drilling is reported in this release.   |
| Drill sample recovery  | <ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade</li> </ul>  | No new Drilling is reported in this release.   |



| Criteria  | JORC Code explanation  | Commentary   |
|---|--|--|
|   | and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.   |  |
| Logging   | <ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>   | <ul> <li>Soil samples are logged for colour, soil type, depth of collection and moisture content.</li> <li>Rock chip samples are logged for alteration, mineralisation and lithology.</li> </ul>   |
| Sub-sampling<br>techniques<br>and sample<br>preparation | <ul> <li>If core, whether cut or sawn and whether quarter, half or all core were taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul> | <ul> <li>Soil samples are screened by the lab to 60 mesh size (-250 microns) for analysis via aqua regia digestion. Samples were collected on a regional grid of 50 metre samples by 200 metre line spacing.</li> <li>Rock chip samples collected from outcrop of altered and mineralized material as well as dump material from historic workings. Samples were under the required 3 kilogram limit and did not require splitting or sub-sampling before analysis.</li> </ul>   |
| Quality of<br>assay data<br>and<br>laboratory<br>tests  | <ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibration factors applied and their derivation, etc.</li> <li>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.</li> </ul>  | <ul> <li>Soil samples dispatched to ALS in Orange, NSW for sample preparation by screening to -250 microns. Samples then undergo analysis by AuME-TL43 for gold and base metals involving an aqua regia digest and an Inductively Coupled Plasma – Mass Spectrometry finish. Samples recording gold over 1ppm were analysed by method Au-AROR43. This method is considered a partial digestion.</li> <li>Rock chip samples dispatched to ALS in Orange, NSW for sample preparation by crushing and pulverizing. Samples then undergo a 33 element analysis by 4 acid digestion using method ME-ICP61 for base metals and by fire assay method Au-AA25 for gold.</li> </ul> |



| Criteria  | JORC Code explanation  | Commentary  |
|---|--|---|
| Verification of<br>sampling and<br>assaying             | <ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>  | <ul> <li>Primary assay data is sent electronically from the lab to the SVL database administrator and then entered into the geological database for validation.</li> <li>All assays are matched with the pre-entered field information and loaded directly from the output provided by the laboratory with no manual entry of assays undertaken.</li> <li>All data are stored in the Company's electronic relational database.</li> <li>No adjustments were made or required to be made to the assay data.</li> </ul>                             |
| Location of data points                                 | <ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>  | <ul> <li>Each sample location for soil and rock chip samples is recorded with a hand-held GPS with an accuracy of +/- 3 meters.</li> <li>All coordinates recorded in MGA94 zone 55.</li> </ul>  |
| Data spacing<br>and<br>distribution                     | <ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>                                 | <ul> <li>The orientation of the soil sampling was designed to cover the regional extent of the southern part of the Tuena Project. The sample spacing was every 50 metres along 200 metre spaced lines. This sample spacing is considered sufficient to identify consistency with mapped geological structures and continuity of gold mineralisation, defined by previous soil sampling by the Company on the Project.</li> <li>Rock chip sampling was conducted randomly on interesting looking geology and potential mineralisation.</li> </ul> |
| Orientation of data in relation to geological structure | <ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul> | The principal mineralized structures appear to strike NW-SE consistent with the orientation of the lithology and major fold structures. The soil sampling grid is conducted perpendicular to the orientation of geology and mineralisation.   |
| Sample<br>security                                      | The measures taken to ensure sample security.  | <ul> <li>All soil samples are bagged at the location of collection, and remain<br/>unopened until being received at the lab. Rock chip samples are<br/>bagged at location. This is completed under the supervision of<br/>Company senior geologists or senior field supervisor. Samples are<br/>driven by site personnel to the ALS laboratory in Orange, NSW<br/>(~90km from the Tuena Project site).</li> </ul>   |

**Silver Mines Limited** 



| Criteria          | JORC Code explanation   | Commentary  |
|-------------------|---|---|
| Audits or reviews | <ul> <li>The results of any audits or reviews of sampling techniques and<br/>data.</li> </ul> | <ul> <li>The sampling technique has been reviewed by the independent<br/>Company advisor Dr Darren Holder of GeoSpy Pty Ltd and who is<br/>also the Competent Person for this release.</li> </ul> |

## Section 2 Reporting of Exploration Results

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

| Criteria   | JORC Code explanation  | Commentary   |
|--|--|--|
| Mineral<br>tenement and<br>land tenure<br>status | <ul> <li>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.</li> <li>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.</li> </ul> | <ul> <li>The Tuena Project is located entirely within Exploration Licence No EL8526, held wholly by Silver Mines Limited, through its subsidiary Tuena Resources Limited, and is located approximately 80km south of Bathurst, New South Wales.</li> <li>The tenement is in good standing.</li> <li>The project has a 1.00% Gross Royalty over 100% of EL8526.</li> </ul>  |
| Exploration done by other parties                | Acknowledgment and appraisal of exploration by other parties.  | <ul> <li>New sampling reported under this table is based on work conducted<br/>solely by Silver Mines/Tuena Resources.</li> </ul>  |
| Geology  | Deposit type, geological setting and style of mineralisation.  | <ul> <li>The Tuena Project consists of Devonian and Silurian age volcanics and sedimentary rocks which have been regionally and locally deformed during the Tabberabberan orogeny. This has resulted in regional folding and multiple generations of faulting associated with the major Copperhannia Thrust on the western side of the tenement.</li> <li>Mineralisation is defined by the existence of historic shafts and audits, and can be observed at surface as structurally controlled shear or vein systems hosted within deformed sediments and volcanics.</li> </ul> |
| Drill hole<br>Information                        | <ul> <li>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> <li>easting and northing of the drill hole collar;</li> <li>elevation or RL (Reduced Level elevation above sea level in metres) of the drill hole collar;</li> </ul> </li> </ul>   | <ul> <li>All information is included in Appendix 1 of this report.</li> <li>No drilling is reported in this release.</li> </ul>  |



| Criteria  | JORC Code explanation   | Commentary  |
|---|---|---|
|   | <ul> <li>dip and azimuth of the hole;</li> <li>down hole length and interception depth; and</li> <li>hole length.</li> <li>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.</li> </ul>   |   |
| Data<br>aggregation<br>methods  | <ul> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul> | No averaging or sample aggregation has been conducted.  |
| Relationship<br>between<br>mineralisation<br>widths and<br>intercept<br>lengths | <ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>   | <ul> <li>The principal mineralized structures appear to strike NW to SE and as<br/>such the soil sampling grids are conducted perpendicular to<br/>geological orientation.</li> </ul> |
| Diagrams  | Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to, a plan view of drill hole collar locations and appropriate sectional views.  | Maps provided in the body of this report.   |
| Balanced<br>reporting   | <ul> <li>Where comprehensive reporting of all Exploration Results is not<br/>practicable, representative reporting of both low and high grades<br/>and/or widths should be practiced to avoid misleading reporting of<br/>Exploration Results.</li> </ul>   | All laboratory results are reported within the body of this release.  |
| Other<br>substantive  | <ul> <li>Other exploration data, if meaningful and material, should be<br/>reported including but not limited to: geological observations;<br/>geophysical survey results; geochemical survey results; bulk<br/>samples – size and method of treatment; metallurgical test results;</li> </ul>  | <ul> <li>This report relates to an overall status and description of current<br/>exploration knowledge at the Tuena Project.</li> </ul>   |

**Silver Mines Limited** 



**Silver Mines Limited** 

| Criteria            | JORC Code explanation   | Commentary  |
|---------------------|---|---|
| exploration<br>data | bulk density, groundwater, geotechnical and rock characteristics and potential deleterious or contaminating substances.   |   |
| Further work        | <ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul> | <ul> <li>Further exploration work will be conducted to refine the gold targets<br/>generated from this work.</li> </ul> |

0+Rule 5.5

## **Appendix 5B**

# Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13, 01/09/16

#### Name of entity

| Silver Mines Limited |                |                                   |  |  |
|----------------------|----------------|-----------------------------------|--|--|
|                      | ABN            | Quarter ended ("current quarter") |  |  |
|                      | 45 107 452 942 | 30 September 2019                 |  |  |

| Con | solidated statement of cash flows              | Current quarter<br>\$A'000 | Year to date<br>\$A'000 |
|-----|--|----------------------------|-------------------------|
| 1.  | Cash flows from operating activities           |                            |                         |
| 1.1 | Receipts from customers                        | 64                         | 64                      |
| 1.2 | Payments for                                   |                            |                         |
|     | (a) exploration & evaluation                   | (1,445)                    | (1,445)                 |
|     | (b) development                                | -                          | -                       |
|     | (c) production                                 | -                          | -                       |
|     | (d) staff costs                                | (420)                      | (420)                   |
|     | (e) administration and corporate costs         | (392)                      | (392)                   |
| 1.3 | Dividends received (see note 3)                | -                          | -                       |
| 1.4 | Interest received                              | 4                          | 4                       |
| 1.5 | Interest and other costs of finance paid       | (12)                       | (12)                    |
| 1.6 | Income taxes paid                              | -                          | -                       |
| 1.7 | Research and development refunds               | 663                        | 663                     |
| 1.8 | Other (provide details if material)            | -                          | -                       |
| 1.9 | Net cash from / (used in) operating activities | (1,538)                    | (1,538)                 |

| 2.  | Cash flows from investing activities |       |       |
|-----|--------------------------------------|-------|-------|
| 2.1 | Payments to acquire:                 |       |       |
|     | (a) property, plant and equipment    | (109) | (109) |
|     | (b) tenements (see item 10)          | -     | -     |
|     | (c) investments                      | -     | -     |
|     | (d) other non-current assets         | (730) | (730) |

| Consolidated statement of cash flows |  | Current quarter<br>\$A'000 | Year to date<br>\$A'000 |
|--------------------------------------|--|----------------------------|-------------------------|
| 2.2                                  | Proceeds from the disposal of:                 |                            |                         |
|                                      | (a) property, plant and equipment              | -                          | -                       |
|                                      | (b) tenements (see item 10)                    | -                          | -                       |
|                                      | (c) investments                                | -                          | -                       |
|                                      | (d) other non-current assets                   | -                          | -                       |
| 2.3                                  | Cash flows from loans to other entities        | -                          | -                       |
| 2.4                                  | Dividends received (see note 3)                | -                          | -                       |
| 2.5                                  | Other (provide details if material)            | -                          | -                       |
| 2.6                                  | Net cash from / (used in) investing activities | (839)                      | (839)                   |

| 3.   | Cash flows from financing activities  |        |        |
|------|---|--------|--------|
| 3.1  | Proceeds from issues of shares  | 12,900 | 12,900 |
| 3.2  | Proceeds from issue of convertible notes                                    | -      | -      |
| 3.3  | Proceeds from exercise of share options                                     | 690    | 690    |
| 3.4  | Transaction costs related to issues of shares, convertible notes or options | (779)  | (779)  |
| 3.5  | Proceeds from borrowings  | -      | -      |
| 3.6  | Repayment of borrowings   | -      | -      |
| 3.7  | Transaction costs related to loans and borrowings                           | -      | -      |
| 3.8  | Dividends paid  | -      | -      |
| 3.9  | Other (transfer for June capital raising)                                   | -      | -      |
| 3.10 | Net cash from / (used in) financing activities                              | 12,811 | 12,811 |

| 4.  | Net increase / (decrease) in cash and cash equivalents for the period |         |         |
|-----|---|---------|---------|
| 4.1 | Cash and cash equivalents at beginning of period                      | 633     | 633     |
| 4.2 | Net cash from / (used in) operating activities (item 1.9 above)       | (1,538) | (1,538) |
| 4.3 | Net cash from / (used in) investing activities (item 2.6 above)       | (839)   | (839)   |
| 4.4 | Net cash from / (used in) financing activities (item 3.10 above)      | 12,811  | 12,811  |
| 4.5 | Effect of movement in exchange rates on cash held                     | -       | -       |
| 4.6 | Cash and cash equivalents at end of period**                          | 11,067  | 11,067  |
|     |   |         |         |

| Consolidated statement of cash flows |   | Current quarter<br>\$A'000 | Year to date<br>\$A'000     |  |
|--------------------------------------|---|----------------------------|-----------------------------|--|
| 5.                                   | Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts | Current quarter<br>\$A'000 | Previous quarter<br>\$A'000 |  |
| 5.1                                  | Bank balances   | 11,067                     | 633                         |  |
| 5.2                                  | Call deposits   | -                          | -                           |  |
| 5.3                                  | Bank overdrafts   | -                          | -                           |  |
| 5.4                                  | Other (provide details)   | -                          | -                           |  |
| 5.5                                  | Cash and cash equivalents at end of quarter (should equal item 4.6 above)   | 11,067                     | 633                         |  |

| 5.5    | Cash and cash equivalents at end of quarter (should equal item 4.6 above) | 11,067                     | 633                        |
|--------|---|----------------------------|----------------------------|
| 6.     | Payments to directors of the entity and                                   | d their associates         | Current quarter<br>\$A'000 |
| 6.1    | Aggregate amount of payments to these parti                               | es included in item 1.2    | 164                        |
| 6.2    | Aggregate amount of cash flow from loans to in item 2.3                   | these parties included     | Nil                        |
| 6.3    | Include below any explanation necessary to u                              | inderstand the transaction | ns included in             |
| Direct | items 6.1 and 6.2 tors' remuneration                                      |                            |                            |
|        | tors' remuneration  |                            |                            |
| Direct |   | ity and their              | Current quarter<br>\$A'000 |
|        | tors' remuneration  Payments to related entities of the ent               |                            |                            |
| 7.     | Payments to related entities of the entices associates                    | es included in item 1.2    | \$A'000                    |

| 8.  | Financing facilities available Add notes as necessary for an understanding of the position | Total facility amount<br>at quarter end<br>\$A'000 | Amount drawn at<br>quarter end<br>\$A'000 |
|-----|--|--|---|
| 8.1 | Loan facilities  | 1,010  | 1,010                                     |
| 8.2 | Credit standby arrangements  |  |   |
| 8.3 | Other (please specify)   |  |   |

8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.

Westpac bank unsecured facility with variable interest rate at 3.86%

| 9.  | Estimated cash outflows for next quarter | \$A'000 |
|-----|--|---------|
| 9.1 | Exploration and evaluation               | 500     |
| 9.2 | Development                              | -       |
| 9.3 | Production                               | -       |
| 9.4 | Staff costs                              | 400     |
| 9.5 | Administration and corporate costs       | 400     |
| 9.6 | Other (Land acquisition)                 | 1,500   |
| 9.7 | Total estimated cash outflows            | 2,800   |

| 10.  | Changes in tenements (items 2.1(b) and 2.2(b) above)  | Tenement reference and location | Nature of interest | Interest at<br>beginning<br>of quarter | Interest at end of quarter |
|------|---|---------------------------------|--------------------|--|----------------------------|
| 10.1 | Interests in mining<br>tenements and<br>petroleum tenements<br>lapsed, relinquished<br>or reduced | Nil                             |                    |  |                            |
| 10.2 | Interests in mining<br>tenements and<br>petroleum tenements<br>acquired or increased              | Nil                             |                    |  |                            |

#### **Compliance statement**

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Sign here: SIGNATURE ON FILE Date: 31 October 2019

(Company secretary)

Print name: Trent Franklin

#### **Notes**

- The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
- 2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
- 3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.