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### 28 July 2020

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

# EXPLORATION UPDATE – SUBSTANTIAL DRILLING PROGRAM AT BOWDENS SILVER AND TUENA

#### **HIGHLIGHTS**

# **Bowdens Silver Project, New South Wales**

- Expanded diamond drilling campaign commenced at Bowdens Silver for up to 10,000 metres.
- Primary targets are high-grade silver below the current proposed pit and multiple new targets to extend beyond current Mineral Resource.
- Drilling to start on extensions and infill to the Northwest High-Grade Silver Zone where previously reported results included;
  - 14 metres @ 319 g/t silver Eq including 4.0 metres @ 1007 g/t silver Eq;
  - o 33 metres @ 215 g/t silver Eq including 7.0 metres @ 555 g/t silver Eq; and
  - 7.1 metres @ 494g/t silver Eq.
- Drilling is expected to continue to at least the end of the calendar year 2020.
- Infill gravity geophysical surveying planned to delineate controlling structures and further local intrusions adjoining Bowdens Silver.

# **Tuena Gold Project, New South Wales**

**Silver Mines Limited** 

- Initial drill program of up to 4,000 metres to commence in the current quarter, pending approvals.
- McPhillamys-style bulk-tonnage gold targets and high-grade gold targets associated with historic workings to be drilled.



## Introduction

Silver Mines Limited (ASX:SVL) ("Silver Mines" or "the Company") is pleased to provide an update on exploration activities commencing at the Bowdens Silver Project and the Tuena Gold Project, both located within New South Wales.

Drilling activities will be expanded with up to 10,000 metres of drilling at the Company's flagship Bowdens Silver Project, targeting high-grade infill and extension silver mineralisation. Also, at the Tuena Gold Project, initial drilling will shortly commence. Drilling is likely to continue to at least the end of the calendar year 2020.

#### **Bowdens Silver**

Since the last exploration update (refer releases 8 April 2020 and the March 2020 quarterly report issued 30 April 2020), the Company has continued with targeting and drilling in the wider Bowdens environs. While the most recent drilling is still being analysed, it has added significant understanding to the context of the Bowdens Silver Deposit being located at the periphery of a large Caldera and highlights the potential for analogue deposits on other faults. Additionally, an external consultant's review has highlighted the potential for multiple highergrade silver zones within and proximal to the Bowdens Silver Project (refer to Figure 1). Diamond drilling is continuing with upcoming holes planned to test extensions of existing resources and to infill to the Northwest High-Grade silver zone that has previously returned spectacular high-grade silver results. BD20010 is currently being drilled (refer to Figure 2).

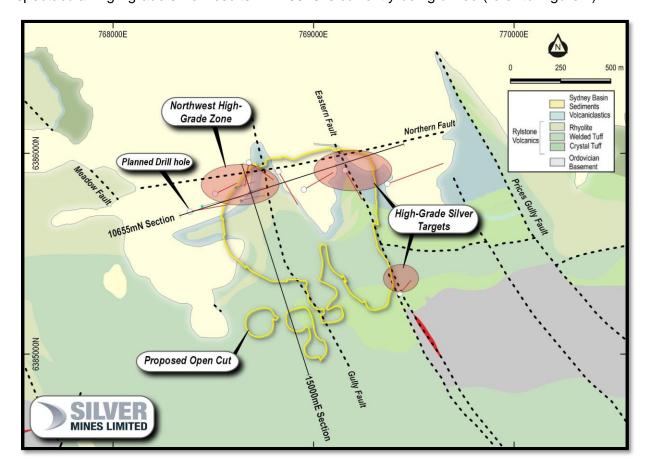


Figure 1. Planned drilling into high-grade silver targets at the Bowdens Silver Project.



The Northwest High-Grade zone is structurally controlled by fault zones, (the Gully Fault and the Northern Fault) and is situated proximal to the main Bowdens Silver Deposit at depth. Previous drilling in this zone has returned the following:

Hole	From	То	Interval	Silver	Zinc	Lead	Silver Eq
	(metres)	(metres)	(metres)	(g/t)	(%)	(%)	(g/t)
BRD18001	283	307	24	108	0.37	0.73	150
Incl.	283	288	5	216	0.37	0.32	245
BD17013	128	171	43	110	0.36	0.86	157
Incl.	151	165	14	203	0.55	0.99	254
BD17015	235	268	33	167	0.29	1.17	215
Incl.	235	242	7	483	0.75	1.38	555
BD17018	179	190.7	11.7	270	0.22	1.18	316
Incl.	183.6	190.7	7.1	391	0.32	1.86	494
BRC12037	186	200	14	284	0.11	0.89	319
Incl.	196	200	4	935	0.14	2.01	1007
BD17020	193	211	18	74	0.81	0.68	136
Incl.	204	205	1	596	0.62	1.18	667
BD17021	198	213	15	209	0.09	1.16	252

For further information and JORC tables, refer to releases dated 31 July 2017 and 22 June 2018. Bowdens' silver equivalent: Ag Eq (g/t) = Ag (g/t) + 33.48\*Pb (%) + 49.61\*Zn (%) calculated from prices of US\$20/oz silver, US\$1.50/lb zinc, US\$1.00/lb lead and metallurgical recoveries of 85% silver, 82% zinc and 83% lead estimated from test work commissioned by Silver Mines Limited.

The Bowdens Silver mineral system is located within a series of stacked west dipping faults which acted as conduits for mineralising fluids. The faults include the Gully Fault and Eastern Fault (refer to Figure 2 and Figure 3). These faults also controlled mineralisation in the basement Ordovician rocks where the Company recently reported broad zones of base-metal mineralisation (refer release dated 8 April 2020).

A number of other recently identified faults that sit close to the interpreted Caldera edge are situated under the post-mineral Sydney Basin sediments and these will also be tested during the upcoming diamond drilling campaign.

Silver Mines' research and development programs are also continuing with infill gravity geophysical data to be collected across the immediate Bowdens Silver Project area. Previously collected gravity data was on a broad line spacing to efficiently cover the Rylstone Volcanics package of rocks, successfully identifying faults, intrusions and the geometry of a Permian aged Caldera. Recently delineated, within the centre of the Bowdens Deposit, is a quartz-dacite porphyry intrusion, which is moderately north-dipping along an east to west strike through the Bundarra Zone and Main Zone. This intrusion is interpreted to be premineralisation. The relationship of this intrusion to the source of hydrothermal mineralising fluids is not yet established, however it appears the intrusion has created fractures within the



surrounding rocks, which host the bulk of the silver-lead-zinc mineralisation at Bowdens. Further detailed gravity surveying will aid in identifying the extent of this intrusive, along with the controlling structures for the emplacement of it and where other intrusives and mineralisation may co-exist.

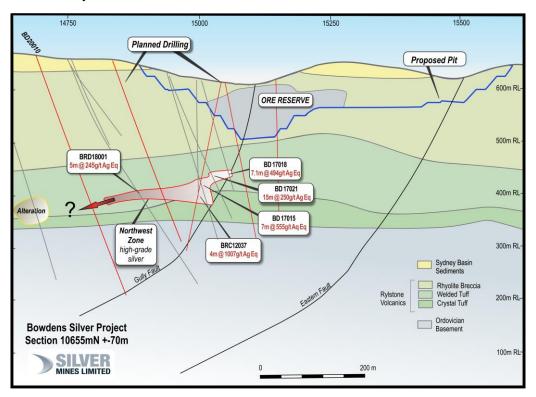


Figure 2. Cross-section 10655mN through the Northwest High-Grade silver zone with planned drilling.

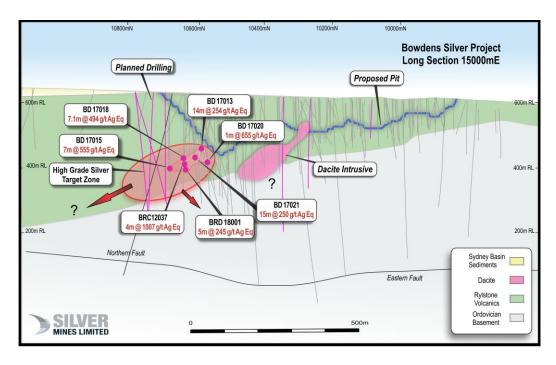


Figure 3. Long section 15000mE through the deposit showing Northwest High-Grade silver zone



# **Tuena Gold Project**

Planning is advanced for the commencement of an initial reverse circulation (RC) and diamond drilling program at the Company's Tuena Gold Project, south of Blayney in New South Wales (refer Figure 4). The Tuena Gold Project, despite being an extensive historic gold field, has had very little exploration completed in the modern era and the planned drilling campaign will represent the first comprehensive drill investigations. Targets are analogous to McPhillamys (Regis Resources) and Cullarin (Sky Metals) gold-rich structurally controlled systems along the Godolphin-Copperhannia-Structural Zone. Targets also include testing beneath historic hard-rock gold workings along an extensive 5.4 kilometre by 1.5 kilometre shear complex.

The Company has previously defined anomalous gold in soil sampling associated with historic workings around Peeks Reef (up to 76.4 g/t in rock sampling), Cooper & McKenzie and the Eastern Prospects (refer release dated 23 October 2019).

Two targets identified with both gold and base-metal signatures potentially related to bulk tonnage gold will be tested at Lucky Hit South and Markham's Prospects. Both prospects adjoin historic workings at Lucky Hit and Markham's Hill respectively and are clearly defined by multi-element chemistry of silver, bismuth, lead, tellurium and gold in soils (refer release dated 19 May 2020).

Pending approvals, a priority program of 4,000 metres drilling will commence during the September 2020 quarter.



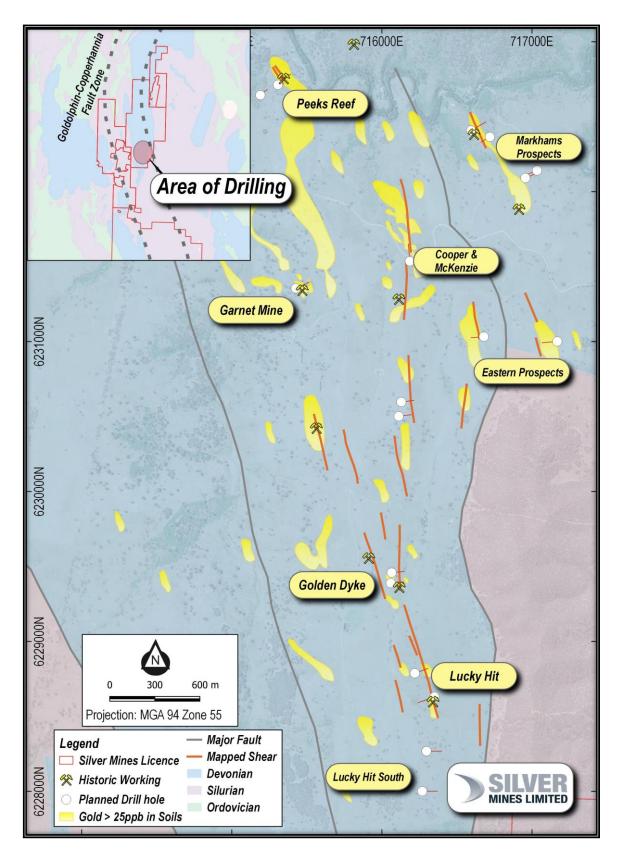


Figure 4. Tuena Gold Project planned drilling with regional insert.



## **About the Bowdens Silver Project**

The Bowdens Silver Project is located in central New South Wales, approximately 26 kilometres east of Mudgee (Figure 5). 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 with substantial resources and a considerable body of high-quality technical work already completed. The projects boast outstanding logistics for future mine development.

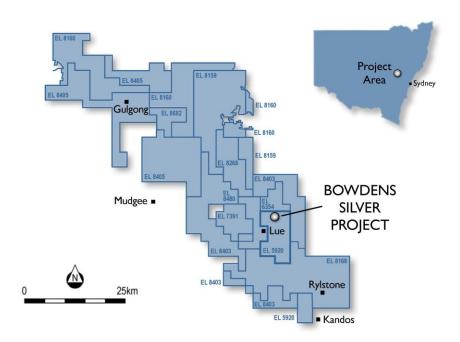


Figure 5. Silver Mines Limited tenement holdings in the Mudgee district.

This document has been authorised for release to the ASX by the Company's Managing Director, Mr Anthony McClure.

#### **Further information:**

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# **Competent Persons Statement**

The information in this report that relates to mineral exploration from the Bowdens Silver Project and the Tuena Gold Project is based on information compiled by the Bowdens Silver team and reviewed by Darren Holden who is an advisor to the Company. Dr 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). Dr Holden consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

Page 8