

#### January 17, 2022

GR Silver Mining Confirms Wide, High-grade Silver Mineralization Below the San Marcial Resource, 18.5 m @ 773 g/t Ag, including 1,792 g/t Ag over 5.6 m

Vancouver, BC – GR Silver Mining Ltd. ("GR Silver Mining" or the "Company") (TSXV|GRSL, OTCQB|GRSLF, FRANKFURT|GPE) – is pleased to announce wide, high-grade silver (Ag) results from diamond core drilling from the recently expanded underground tunnel in the San Marcial Area, at the Plomosas Project, Sinaloa, Mexico. These assay results are from the initial three holes of an eight-hole program and confirm extensions of high-grade Ag mineralization along strike, as well as up to 170 m down dip, below the San Marcial NI 43-101 mineral resource. The successful results extend the mineralization from the initial 250 m to approximately 420 m down dip from surface. These results also suggest that the compilation of modern and historical data, combined with advanced geological modelling, has been successful in targeting higher grade mineralization on the project.

The Company has successfully completed the first ever underground drill program at San Marcial, confirming extensions of the high-grade Ag mineralization at attractive widths and grades to support future resource expansion (Figure 1).

All eight holes in the resource expansion program have now been successfully completed with assays pending for five holes.

## **Highlights:**

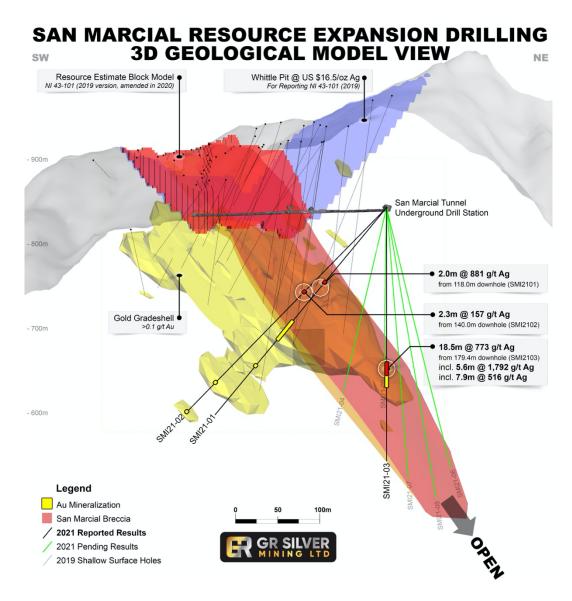
- First phase of San Marcial resource expansion drilling successfully completed, defining not only continuity of high-grade Ag mineralization but also delineating new, wide hydrothermal breccias carrying Au mineralization on the footwall of the San Marcial Ag-rich hydrothermal breccia.
- Ag results from the San Marcial Breccia include:
  - o **881 g/t Ag over 2.0 m** from 118.0 m downhole (SMI21-01)
  - 773 g/t Ag over 18.5 m from 179.4 m downhole (SMI21-03), including:
    1,792 g/t Ag over 5.6 m from 184.5 m downhole, and
    516 g/t Ag over 7.9 m from 190.0 m downhole
- Initial resource expansion drilling consists of 8 holes for 2,436 m drilled from recently completed underground development in the current resource area.
- Discovery of disseminated Au mineralization on the footwall of the San Marcial Ag-rich
  Breccia hosted in multiple hydrothermal breccias delineating new target for future drilling

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aiming to define wide Au only mineralized system.

- o **0.19 g/t Au over 77.5 m** from 138.3 m downhole (SMI21-01)
- Full integration of the recently completed ground geophysical survey (IP-MAG), covering the trend from San Marcial to San Juan, combined with new geological discoveries, has proven essential for definition of the exploration program for 2022, including surface and underground drilling in new target areas.
- Definition of a multi-event mineralized hydrothermal system with multiple styles of hydrothermal breccia indicating a large geological setting to support resource expansion and additional discoveries in the vicinities of the current NI 43-101.

Figure 1: San Marcial NI 43-101 resource model and extension



GR Silver Mining President and CEO, Marcio Fonseca commented "The first drill results from our resource expansion program at San Marcial have proven the consistency and continuity of the Ag-rich San Marcial Breccia mineralization, along strike and down dip. Based on such encouraging initial assay results we are anticipating continued positive results for the remainder of the drill core currently at the laboratory. The introduction of a modern exploration approach by the GR Silver Team is delineating an extensive hydrothermal system with presence of high-grade silver mineralization, proving continuity of the San Marcial Breccia down dip to support resource expansion. It is also delineating wide Au mineralized zones, which will be the subject of additional drilling in 2022. I congratulate the GR Silver Team for its exploration achievement at San Marcial by discovering the down dip extension of the San Marcial Breccia."

# **Resource Expansion Drill Program**

The first phase resource expansion drill program included 2,436 m with eight diamond drill holes completed from one platform at the end of the 280 m of underground development at the San Marcial tunnel. This underground drill station makes it cost-effective to drill additional extensions of the San Marcial Breccia down dip and down plunge (see News Release dated September 1, 2021). Oriented drill core was logged in detail, given the large hydrothermal system encountered in most of the eight holes drilled in this program. Assay results for the initial three drill holes have been received (Table 1), and results for the remaining five drill holes are pending (Table 2).

Significant results from the initial underground drilling at San Marcial Area are shown in Table 1, below:

**Table 1: San Marcial Drill Results** 

Drill Hole	From (m)	To (m)	Apparent width (m)	True width (m)	Ag g/t	Au g/t	Pb %	Zn %
SMI21-01	109.5	135.6	26.1	24.5	97	0.02	0.2	0.2
includes	118.0	120.0	2.0	1.9	881	0.05	0.2	0.4
	142.3	155.7	13.4	12.6	4	0.23	na	na
	166.0	174.2	8.2	7.7	7	0.22	na	na
	183.8	214.1	30.3	28.5	6	0.23	na	na
	254.8	257.6	2.8	2.6	1	1.08	na	na
SMI21-02	140.0	157.8	17.8	17.5	53	0.02	0.3	0.5
includes	140.0	142.3	2.3	2.3	157	0.06	1.3	2.5
	282.7	286.4	3.7	3.6	3	0.20	na	na
	292.9	294.8	1.9	1.9	6	0.75	na	na
	332.0	332.5	0.5	0.5	185	0.03	na	0.1
	340.5	342.5	2.0	2.0	5	0.32	na	na
SMI21-03	179.4	197.9	18.5	13.5	773	0.02	0.3	0.4
includes	184.5	190.0	5.6	4.1	1,792	0.04	0.6	0.8

and	190.0	197.9	7.9	5.8	516	0.02	0.1	0.1
	201.0	213.2	12.2	8.9	19	0.14	0.3	8.0

"na" = no significant result. Numbers may be rounded. Results are uncut and undiluted. True sample widths are approximate due to complexity of structural orientations.

# **San Marcial Geology and Mineralization Styles**

The San Marcial Ag-Pb-Zn-(Au-Cu) mineral body is a remarkably consistent tabular structure trending NW-SE with an average dip of 55 degrees to the NE and a thickness that varies from 10 to 50 m. It follows the San Marcial Fault, with andesitic volcanic breccias and ignimbritic block and ash units in the hanging wall. In the footwall, a strongly altered heterogenous volcaniclastic-sedimentary unit is found (Figure 2).

Silver mineralization is comprised of three distinct events. The first mineralizing event consists of hydrothermal breccias with silica-rich cement and clasts of volcaniclastic-sedimentary rock in the footwall, which contains pyrite in veinlets and disseminated with continuous low-grade Au (0.1 – 2.0 g/t) content over large intervals of up to 140 m (Figure 2). An example of this is in drill hole SMI21-01, which returned 0.23 g/t Au over 30.3 m, with individual samples up to 1.00 g/t Au (189.6 – 190.5 m). At depth, strongly silicified and mineralized felsic dykes have been identified with values of up to 0.94 g/t Au (SMI21-01: 143.4 – 144.6 m) possibly related to this hydrothermal event. Similar lithologies have previously been associated with high-grade gold mineralization in the footwall at San Marcial, with drill hole SM-19-01 returning 1.0 m at 204.6 g/t Au (see News Release dated July 30, 2019). Further, several fault-parallel crackle breccia zones are evident in the hanging wall with similar compositional characteristics as the hydrothermal breccia.

The second mineralizing event produces the main San Marcial Breccia with high-grade Ag and subordinate Pb and Zn. It is bound to the San Marcial Fault and shows several brecciation events with Ag-sulphides, and coarse galena and sphalerite mineralization with a characteristic silica-hematite matrix and reddish colour. The third mineralizing event is related to late, steeply dipping faults that cut and displace the rock units, showing approximately 2 m-wide stockwork and veinlet zones of low-temperature quartz-amethyst-calcite mineralization which contain Ag mineralization, and are found in the footwall and hanging wall of the deposit.

Photographic images and assay values of representative core samples are found here.

Figure 1 provides a sectional slice through a 3-dimensional model of the San Marcial deposit. The main Agbearing San Marcial Breccia dips consistently down to the NE below the theoretical pit outline. The current San Marcial NI 43-101 Mineral Resource report (see News Releases dated February 7, 2019 and June 12, 2020) concentrates on the upper portion of the Ag mineralization close to the surface. The wide, high-grade Ag result in SMI21-03 (Table 1) is located approximately 170 m down dip below the base of the NI 43-101 Mineral Resource, highlighting the potential for underground resource expansion. Geological logging has confirmed the presence of breccia in hole SMI21-07, located deeper than hole SMI21-03 (Figure 1), indicating additional down dip expansion potential.

The extensive, wide, low-grade Au zone in the footwall below the San Marcial Breccia also features in this model. Future exploration of the footwall zone will continue to provide a better understanding of the Au

mineralization, its genesis, and hopefully provide vectors that will assist in defining additional higher-grade zones.

451100E 450800E 450700E 450900E 451000E Fault N-S San Marcial Fault San Marcial 900 Breccia Lithology San Marcial **Tunnel** Volcaniclastic 800 -sedimentary unit Andesite block and ash Volcanic breccia 750 Rhyolitic dyke **Lower Limit** Andesitic dyke NI 43-101 Hydrothermal breccia 700 Mineral Resource Crackle breccia San Marcial Breccia 30.3m @ 0.23 g/t Au Fault Fault, inferred 2021 Underground drill holes: SMI21-02 600 Reporting Pending Results SMI21-01 Surface drill holes: 1.9m @ 0.75 g/t Au • 12.2m @ 0.14 g/t Au • SMI21-03 500 150 SMI21-07 SMI21-08

Figure 2: Cross-section of the San Marcial deposit

Targeting of the drill program was aided by 3D chargeability, resistivity and magnetic inversion data products received by the Company over the San Marcial Resource Area. Several zones of elevated chargeability correspond with volcaniclastic-sedimentary units that are found in the immediate footwall of the San Marcial Fault, overlapping with areas of disseminated pyrite, and coincident with previously reported gold intercepts (see News Release dated November 12, 2020).

2545900N

2546000N

2546100N

2545800N

**Table 2: San Marcial Underground Drill Hole Details** 

2545700N

Drill Hole	East (m)	North (m)	RL (m)	Dip (°)	Azimuth (°)	Depth (m)	Results Status
SMI21-01	451033	2546021	818	-48	218	330	Received

Drill Hole	East (m)	North (m)	RL (m)	Dip (°)	Azimuth (°)	Depth (m)	Results Status
SMI21-02	451033	2546021	818	-43	183	345	Received
SMI21-03	451033	2546021	818	-90	0	300	Received
SMI21-04	451033	2546021	818	-70	148	234	Pending
SMI21-05	451033	2546021	818	-70	325	330	Pending
SMI21-06	451033	2546021	818	-50	285	255	Pending
SMI21-07	451033	2546021	818	-75	90	333	Pending
SMI21-08	451033	2546021	818	-80	360	309	Pending

Note: all holes drilled from the same underground drill platform

## **San Marcial Exploration Planning**

The Company anticipates assay results from the remaining five drill holes in the initial underground drill program at San Marcial in the coming months. Once received, the 3-dimensional geological model will be updated and further surface and/or underground drilling will be delineated. The GR Silver Mining Team continues to assess additional targets along strike from the San Marcial Resource Area, particularly to the SE, for Ag resource expansion based on similar geological-geophysical and structural targets recognized in our 2021 exploration program.

#### **Qualified Person**

The scientific and technical data contained in this News Release related to the exploration program were reviewed and/or prepared under the supervision of Marcio Fonseca, P. Geo. He has approved the disclosure herein.

### About GR Silver Mining Ltd.

GR Silver Mining is a Canadian-based, Mexico-focused junior mineral exploration company engaged in cost-effective silver-gold resource expansion on its 100%-owned assets, located on the eastern edge of the Rosario Mining District, in the southeast of Sinaloa State, Mexico. GR Silver Mining controls 100% of two past producer precious metal underground and open pit mines, within the expanded Plomosas Project, which includes the integrated San Marcial Area and La Trinidad acquisition. In conjunction with a portfolio of early to advanced stage exploration targets, the Company holds 734 km² of concessions containing several structural corridors totaling over 75 kilometres in strike length.

### **GR Silver Mining Ltd.**

Mr. Marcio Fonseca, P. Geo. President & CEO

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