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## Meridian's EM Surveys Unlock Both West and South Extensions to Santa Helena VMS Deposit

### *Extensive down-dip EM responses beyond high-grade Cu-Au-Ag & Zn mineralization*

LONDON, United Kingdom, February 13, 2024 / Accesswire / Meridian Mining UK. S (TSX: MNO), (Frankfurt/Tradegate: 2MM) (OTCQB: MRRDF) ("Meridian" or the "Company") is pleased to announce strong results from its first Bore Hole Electromagnetic surveys ("BHEM") at its Santa Helena high-grade deposit ("Santa Helena"). BHEM has modelled conductive plates as down-dip extensions of high-grade Cu-Au-Ag & Zn mineralization recently reported by the Company. This includes a 175m projection of CD-359's higher-grade core that assayed 9.4m @ 1.9g/t AuEq from 13.0m<sup>1</sup> ("Figure 1"). This plate projects past the modelled limits of Santa Helena's Exploration Target<sup>1</sup>, expanding the potential footprint of future drill targets ("Figure 2"). The BHEM program commenced at the western limit of Santa Helena and is progressing eastwards and will test for further in-hole and off-hole responses to target sulphide extensions. Further drill assays and geophysical survey results are pending for Santa Helena and Cabaçal.

#### HIGHLIGHTS REPORTED TODAY

- Meridian expands Santa Helena's Cu-Au-Ag & Zn mineralization upside further to the west & south;
- 175m long conductive plate modelled down-dip from recent high-grade drilling & expands upside past historical mine's limits;
- Multiple BHEM plates coincident with the projection of new high-grade intersections at Santa Helena;
- Geophysical survey projects mineralization outside of Exploration Target's upside limits; and
- Surface geophysical program progressing eastward; targeting to connect with Álamo trend.

Meridian is integrating its recent and historical drill results of Santa Helena with a full suite of down hole and surface geophysical techniques to map and extend the known high-grade Cu-Au-Ag & Zn mineralization, and to expand its upside potential. To date, this has extended the 1.0km limits of the historical resource into a 3km long prospective corridor. The Company will continue to concentrate its resource program within a 1.4km core zone, while continuing a step out drill program along the eastern extension to the mine.

Mr. Gilbert Clark, CEO, comments: *"Santa Helena continues to show expanded potential well past our original expectations. The initial BHEM results from the mine's western limits have delivered extensional targets for high-grade Cu-Au-Ag & Zn mineralization that are projecting well beyond the Exploration Target's upside limits. The geophysical team is now focusing on extending their programs easterly along Santa Helena's prospective target corridor. We believe we are at the start of an exciting new phase of discovery, and our objective is to test the potential for Cabaçal to grow to be a world-class camp."*

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<sup>1</sup> Meridian Mining news release dated December 5, 2023

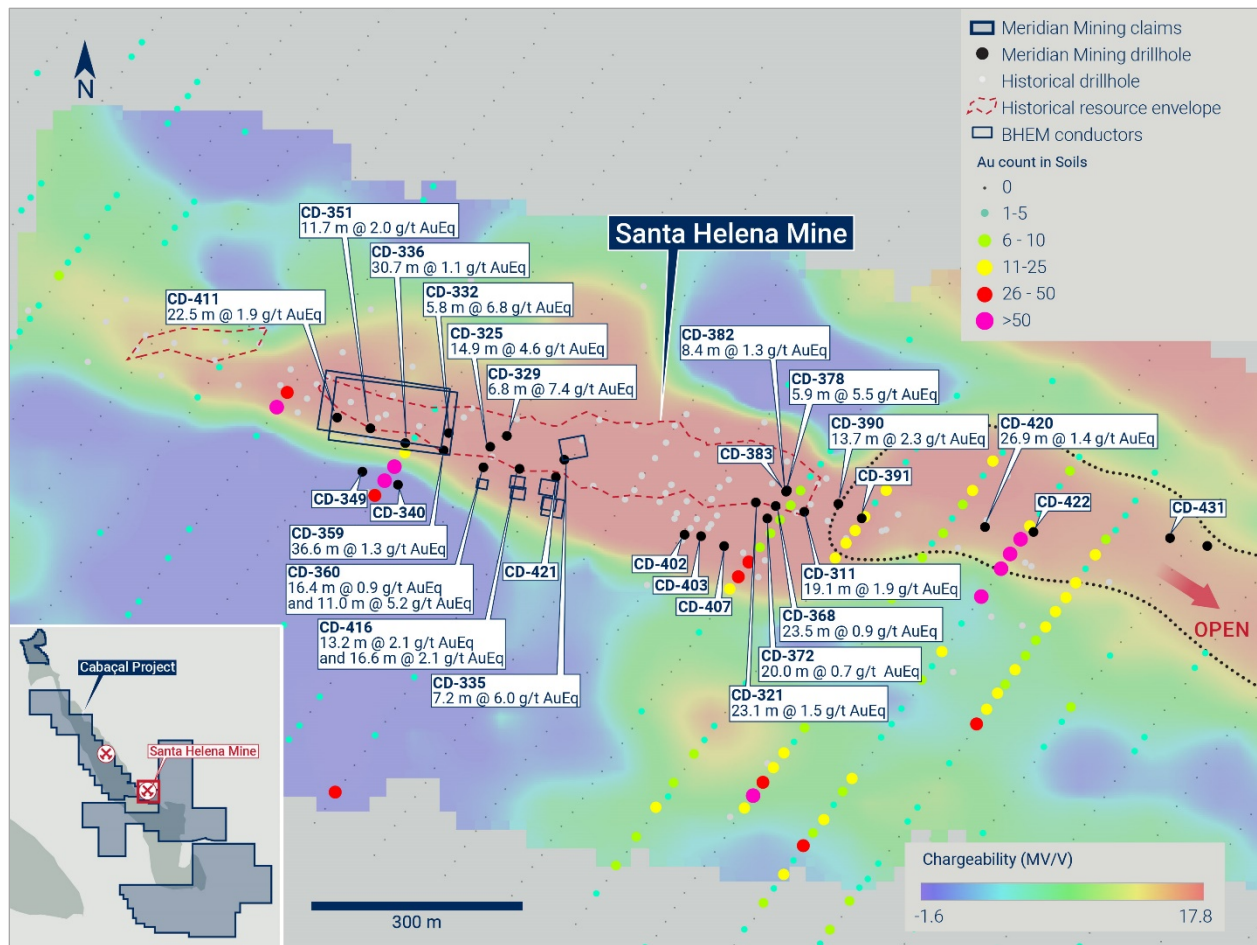


Figure 1: Santa Helena drill highlights with newly modelled BHEM conductive plates.

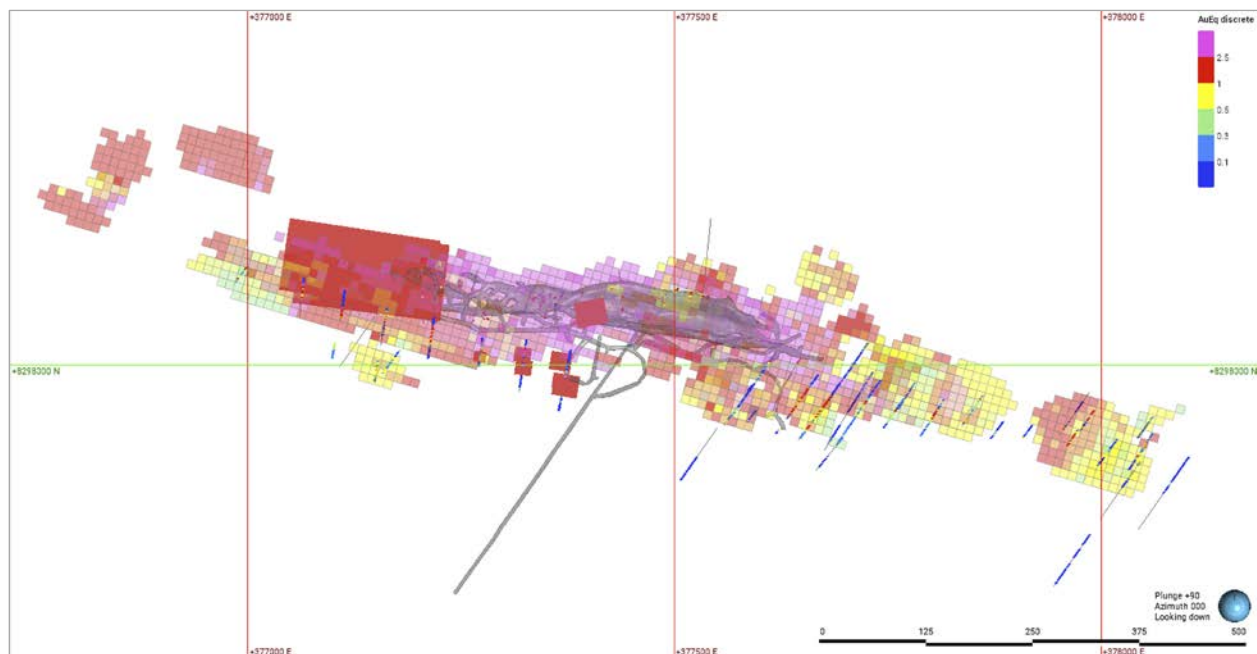


Figure 2: Santa Helena Exploration Target upside model, together with recent geophysical plate models associated with new intersections highlighting growth potential.

## SANTA HELENA UPDATE

The Santa Helena Cu-Au-Ag & Zn VMS deposit, located ~9km to the southeast of the Cabaçal Mine, represents the Company's second open pit development target in the 50+ km Cabaçal Belt. The Company is leveraging off a historical drill dataset including over 10,000 m of drilling, and combined with its recent drill results, has defined an Exploration Target for the deposit area of 3.2 - 7.2 Mt @ 3.0 - 3.2g/t AuEq. Following initial successful verification drilling which commenced in August 2023<sup>2</sup>, the ongoing resource definition drilling program has confirmed the presence of significant mineralization both within the historical envelope, up-dip to the historical envelope, across-strike in a new second sulphide layer, and up to 510m along strike from the historic resource limits (assays pending). Highlights from drilling to date<sup>3</sup> include:

- CD-325: 14.9m @ 4.6 g/t AuEq from 26.3m;
- CD-329: 6.8m @ 7.4g/t AuEq from 38.7m;
- CD-332: 5.8m @ 6.8g/t AuEq from 32.2m;
- CD-335: 7.2m @ 6.0g/t AuEq from 35.5m;
- CD-360: 16.4m @ 0.9g/t AuEq from 6.0m & 11.0m @ 5.2g/t AuEq from 30.0m;
- CD-416: 13.2m @ 2.1g/t AuEq from 11.0m & 16.6m @ 2.1g/t AuEq from 41.4m;
- CD-411: 22.5m @ 1.9g/t AuEq from 11.0m; and
- CD-378: 5.9m @ 5.5g/t AuEq from 38.3m.

Meridian's first phase of surface geophysics focused on Electromagnetic ("FLTEM") and Induced Polarization ("IP") surveys, which revealed a broader than expected chargeability response over the Santa Helena deposit, and with conductive FLTEM plates dipping northwards from the deposit<sup>4</sup>. Progression of the IP grid has defined a 2km eastern extension of the chargeability trend<sup>5</sup>. The Company focused initially on verification drilling, and subsequently on testing the shallow up-dip and strike extensions of the deposit. The results have achieved and exceeded expectations: firstly, confirming the significant high-grade Cu-Au-Ag & Zn VMS mineralization in the mine area, and then confirming extensions beyond the limits of the historical resource, in areas previously not drill tested. The recent drilling combined with BHEM now shows that intersections have associated conductive plates indicative of sulphide mineralization.

Recent down-hole survey platforms have tested the western and southern margins of the deposit, resolving a number of conductors of near-mine exploration significance (Figure 1; Figure 2).

The conductive response at the western margin of the deposit is marked by an interpreted plate of ~175 x 100m extent, with a conductivity of 10 Siemens. The down-dip extension of the conductor projects beyond the limit of the Exploration Target upside model, and further drilling will be required to test areas remaining open in the target.

Additional survey platforms on the southern flank of the deposit show conductors in the CD-360 - CD-416 area, again associated with strong intersections. Modelled plates are 15 to 30m in strike and dip, with a conductivity of 5 to 30 Siemens.

In addition to the planned near-mine BHEM and Mise-a-la-Masse surveys making use of new drill platforms, our geophysical survey team will expand the surface FLTEM and gravity surveys to refine targets in the open eastern extensions to the mineral system over Álamo.

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<sup>2</sup> Meridian Mining news release dated August 8, 2023

<sup>3</sup> Meridian Mining news releases dated September 12 & 27, October 23, November 14, 2023, and January 10, 2024.

<sup>4</sup> Meridian Mining news release dated January 24, 2023

<sup>5</sup> Meridian Mining news release dated October 23, 2023

## ABOUT MERIDIAN

Meridian Mining UK S is focused on:

- The development and exploration of the advanced stage Cabaçal VMS gold-copper project;
- Regional scale exploration of the Cabaçal VMS belt; and
- Exploration in the Jaurú & Araputanga Greenstone belts (the above all located in the State of Mato Grosso, Brazil).

Cabaçal is a gold-copper-silver rich VMS deposit with the potential to be a standalone mine within the 50km VMS belt. Cabaçal's base and precious metal-rich mineralization is hosted by volcanogenic type, massive, semi-massive, stringer, and disseminated sulphides within deformed metavolcanic-sedimentary rocks. A later-stage gold overprint event has emplaced high-grade gold mineralization.

The Preliminary Economic Assessment technical report (the "PEA Technical Report") dated March 30, 2023, entitled: "Cabaçal Gold-Copper Project NI 43-101 Technical Report and Preliminary Economic Assessment, Mato Grosso, Brazil" outlines a base case after-tax NPV5 of USD 573 million and 58.4% IRR from a pre-production capital cost of USD 180 million, leading to capital repayment in 10.6 months (assuming metals price scenario of USD 1,650 per ounces of gold, USD 3.59 per pound of copper, and USD 21.35 per ounce of silver). Cabaçal has a low All-in-Sustaining-Cost of USD 671 per ounce gold equivalent for the first five years, driven by high metallurgical recovery, a low life-of-mine strip ratio of 2.1:1, and the low operating cost environment of Brazil (see press release dated March 6, 2023).

The Cabaçal Mineral Resource estimate consists of Indicated resources of 52.9 million tonnes at 0.6g/t gold, 0.3% copper and 1.4g/t silver and Inferred resources of 10.3 million tonnes at 0.7g/t gold, 0.2% copper & 1.1g/t silver (at a 0.3 g/t gold equivalent cut-off grade), including a higher-grade near-surface zone supporting a starter pit.

Readers are encouraged to read the PEA Technical Report in its entirety. The PEA Technical Report may be found on the Company's website at [www.meridianmining.co](http://www.meridianmining.co) and under the Company's profile on SEDAR+ at [www.sedarplus.ca](http://www.sedarplus.ca).

The qualified persons for the PEA Technical Report are: Robert Raponi (P. Eng), Principal Metallurgist with Ausenco Engineering), Scott Elfen (P. E.), Global Lead Geotechnical and Civil Services with Ausenco Engineering), Simon Tear (PGeo, EurGeol), Principal Geological Consultant of H&SC, Marcelo Batelochi, (MAusIMM, CP Geo), Geological Consultant of MB Geologia Ltda, Joseph Keane (Mineral Processing Engineer; P.E), of SGS, and Guilherme Gomides Ferreira (Mine Engineer MAIG) of GE21 Consultoria Mineral.

On behalf of the Board of Directors of Meridian Mining UK S

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Meridian Mining UK S

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### Technical Notes

*Samples have been analysed at the accredited ALS laboratory in Lima, Peru. Samples are dried, crushed with 70% passing <2mm, split off to give a mass of approximately 250g, and pulverized to >85% passing 200#. Routine gold analyses have been conducted by Au-AA23 (fire assay of a 30g charge with AAS finish). High-grade samples (>10g/t Au) are repeated with a gravimetric finish (Au-GRA21). Samples are held in the Company's secure facilities until dispatched and delivered by staff and commercial couriers to the*

*laboratory. Pulps and coarse rejects are retained and returned to the Company for storage. The Company submits a range of quality control samples, including blanks and gold and polymetallic standards supplied by Rocklabs, ITAK and OREAS, supplementing laboratory quality control procedures. Approximately 5% of archived samples are sent for umpire laboratory analysis, including any lots exhibiting QAQC outliers after discussion with the laboratory. In BP Minerals sampling, gold was analysed historically by fire assay and base metals by three acid digest and ICP finish at the Nomos laboratory in Rio de Janeiro. Silver was analysed by aqua regia digest with an atomic absorption finish. True width is considered to be 80-90% of intersection width. Assay figures and intervals are rounded to 1 decimal place. Gold equivalents for Cabaçal are calculated as:  $AuEq(g/t) = (Au(g/t) * \%Recovery) + (1.492 * (Cu\% * \%Recovery)) + (0.013 * (Ag(g/t) * \%Recovery))$ , where:*

- $Au\_recovery\_ppm = 5.4368 \ln(Au\_Grade\_ppm) + 88.856$*
- $Cu\_recovery\_pct = 2.0006 \ln(Cu\_Grade\_pct) + 94.686$*
- $Ag\_recovery\_ppm = 13.342 \ln(Ag\_Grade\_ppm) + 71.037$*

*Recoveries based on 2022 metallurgical testwork on core submitted to SGS Lakefield*

*Gold equivalents for Santa Helena are based on metallurgical recoveries from the historical resource calculation, updated with pricing forecasts aligned with the Cabaçal PEA.  $AuEq(g/t) = (Au(g/t) * 65\%Recovery) + (1.492 * Cu(\%) * 89\%Recovery) + (0.474 * Zn\% * 89\%Recovery)) + (0.013Ag(g/t) * 61\%Recovery))$ . Recovery formulas will be updated with future testwork programs.*

*Electromagnetic surveys have been conducted using the SMARTem Geophysical Receiver System manufactured by ElectroMagnetic Imaging Technology (EMIT). Induced polarization surveys have been conducted by the Company's in-house team utilizing its GDD GRx8-16c receiver and 5000W-2400-15A transmitter. Results are sent daily for processing and quality control to the Company's consultancy, Core Geophysics. Modelling of conductivity response is undertaken using industry-standard Maxwell software. Geophysical and geochemical exploration targets are preliminary in nature and not conclusive evidence of the likelihood of a mineral deposit.*

#### Qualified Person

Mr. Erich Marques, B.Sc., MAIG, Chief Geologist of Meridian Mining and a Qualified Person as defined by National Instrument 43-101, has reviewed, and verified the technical information in this news release.

#### FORWARD-LOOKING STATEMENTS

Some statements in this news release contain forward-looking information or forward-looking statements for the purposes of applicable securities laws. These statements address future events and conditions and so involve inherent risks and uncertainties, as disclosed under the heading "Risk Factors" in Meridian's most recent Annual Information Form filed on [www.sedar.com](http://www.sedar.com). While these factors and assumptions are considered reasonable by Meridian, in light of management's experience and perception of current conditions and expected developments, Meridian can give no assurance that such expectations will prove to be correct. Any forward-looking statement speaks only as of the date on which it is made and, except as may be required by applicable securities laws, Meridian disclaims any intent or obligation to update any forward-looking statement, whether as a result of new information, future events, or results or otherwise.