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## Meridian Announces Data On Cabaçal's Cu-Au-Ag Metallurgy

*"Future test work to target replicating Cabaçal's historical recoveries of +90% for Copper, 90% for Gold and +85% for Silver"*

LONDON, United Kingdom, April 19, 2021 / CNW / Meridian Mining UK S (TSXV: MNO) (Frankfurt: 2MM) ("Meridian" or the "Company") is pleased to provide historical analysis regarding the metallurgical expectations for its Cabaçal Copper-Gold camp scale VMS project (the "Project") in Mato Grosso, Brazil. The Company has been reviewing the available historical mill reports<sup>1</sup> for the Cabaçal mine ("Cabaçal") when it was operated from 1987 to 1991 by BP Minerals/Rio Tinto including the full year mill summary for 1990 (Table 1). Based on this historical data the Company's present targets of metal recoveries for its future metallurgical test programs are set at: +90% for Copper ("Cu"), 90% for Gold ("Au") and +85% for Silver ("Ag"), via conventional flotation and gravity processes. Meridian is currently advancing its diamond drill program focussing on the broad Cu-Au sulphide mineralisation of Cabaçal.

Highlights of metallurgical data:

- Meridian's metallurgical program aims to replicate historical high recoveries of Cabaçal;
- Cabaçal's metallurgical test work targeting recoveries of:
  - +90% for Copper;
  - 90% for Gold; and
  - +85% for Silver.
- Cabaçal metallurgical processes to be initiated during 2021 are:
  - Best current milling and flotation approaches for Cu-Au-Ag + Zinc (Zn) and Lead ("Pb"); and
  - Gravity separation of Au (+Ag) recovered from scavenger circuit trials.

The historical metallurgical recoveries of Cu-Au-Ag at the Cabaçal, achieved via a simple flow sheet supported by empirical mine data, provided the strong basis that the Company has used to set its objectives for the Project's future metallurgical test programs.

Cabaçal's positive metallurgical attributes have been demonstrated by the 5 years of historical (1987 to 1991) production and their related, available records\*. The historical beneficiation of the Cu dominated sulphide assemblage at Cabaçal was via a simple flow sheet of crushing, grinding (110 µm), flotation of the Cu-Au-Ag sulphide assemblage and a gravity circuit. The excellent autoflotation characteristics of the Cabaçal mine's chalcopyrite lent themselves to a simple flotation schedule to make a good recovery of copper to a clean concentrate. The subsequent (xanthate) scavenger circuit recovered gold/pyrite/pyrrhotite minerals with the gold (+Ag) separated by spirals and then shaker tables with doré bars smelted at site.

Year: 1990	Cabaçal Mill Feed			Flotation recoveries			Gravity recoveries		Total metal Recoveries		
	Au g/t	Cu %	Ag g/t	Au %	Cu %	Ag %	Au %	Ag %	Au %	Cu %	Ag %
January	3.03	109	5.06	57.9	95.1	85.0	39.1	1.6	97.0	95.1	86.6
February	3.04	1.03	4.90	54.8	95.1	81.9	39.8	1.9	94.6	95.1	83.8
March	3.20	1.00	4.29	56.4	95.1	79.1	36.8	2.1	93.2	95.1	81.2
April	3.37	0.99	4.07	53.5	94.0	79.6	40.5	2.5	94.1	94.0	82.2
May	3.33	1.08	4.77	55.7	94.9	81.4	37.3	2.8	93.0	94.9	84.1
June	3.28	1.07	4.00	52.3	94.1	87.1	40.7	3.4	93.0	94.1	90.5
July	3.53	1.14	4.50	47.2	94.0	87.2	44.8	3.1	92.0	94.0	90.4
August	3.21	1.05	3.59	50.9	93.7	88.3	42.2	3.1	93.1	93.7	91.4
September	4.14	1.04	3.53	49.5	94.6	81.8	44.1	3.8	93.6	94.6	85.7
October	4.17	1.1	3.96	49.8	94.1	83.4	43.6	3.3	93.5	94.1	86.7
November	4.21	1.25	4.44	49.8	95.6	88.3	43.7	3.3	93.5	95.6	91.6
December	4.15	0.92	3.2	47.4	95.0	88.2	45.7	4.1	93.1	95.0	92.3
<b>1999 Averages</b>	<b>3.50</b>	<b>1.06</b>	<b>4.23</b>	<b>52.0</b>	<b>94.6</b>	<b>84.1</b>	<b>41.5</b>	<b>2.8</b>	<b>93.6</b>	<b>94.6</b>	<b>86.9</b>

Table 1 Full year historical mill records for the Cabaçal Au-Cu mine 1990<sup>1</sup>

The Company is particularly encouraged by the report<sup>3</sup> concerning the Cabaçal plant's earlier commissioning period ending June 1987. During the mill's ramp up period and prior to the gravity circuit's installation, the Cabaçal mill was fed using the mines development material grading 0.1 g/t Au and 0.3% Cu (Ag not reported). The report states that the Cu concentrates produced graded 7 g/t Au, 18% Cu, and 80 g/t Ag with recoveries of Au @ 80%, Cu @ 94% and 80% for silver. The lower Au (+Ag) recovery is attributed to the coarse fraction not being recovered during this period. The Company's sees this as a positive attribute, that the overall high metallurgical recoveries are spread across the broad spectrum of Cu-Au-Ag grades found in the historical Cabaçal mine data. As part of the future metallurgical studies the Company will also look at how the lower grade Cu-Au-Ag sulphide assemblage can be used as a blending material with higher grading sulphide material so to maintain a steady feed grade during the trial metallurgical test work.

"The ongoing diamond drill and geophysics programs at Cabaçal are all part of the larger program we have planned to develop the Project", commented Dr Adrian McArthur, Meridian's CEO and President. "We are encouraged by the historic data to guide Cabaçal's planned metallurgical programs where they will target recoveries of +90% for copper, 90% for gold and +85% for silver. We are confident in the historical operational reports from when the Cabaçal mine was in production, and have also sought the input of the mill managers who operated the plant back then. Having a large but open Cu-Au VMS deposit to develop that also had high metal recoveries when it was in operation again shows what an exceptional opportunity Cabaçal and the greater Project is for Meridian."

The positive metallurgical characteristics of the Cabaçal gold mine is largely due to its principal sulphide assemblage of 65% chalcopyrite, 25% pyrite and 10% pyrrhotite. The accessory sulphides are sphalerite, molybdenite, cubanite and galena. Gold's high recoveries are due to its distribution, 42.9% in silicates (i.e., free), 31.8% in chalcopyrite 9.1% in pyrite, 8.7% pyrrhotite, 1.2% in sphalerite and 6.3% as intergrowths

between sulphides and silicates. Silver is mainly associated with the gold as electrum. The Cabaçal mine when in operation was focused on Au & Cu recoveries, as such the Zn and Pb minerals were not recovered and no data on their metallurgy is known. There are no known records of Zn or Pb impurities in the Cu concentrate nor of any related smelter penalties.

Dr. Adrian McArthur, B.Sc. Hons, PhD. FAusIMM., CEO and President of Meridian Mining as well as a Qualified Person as defined by National Instrument 43-101, has supervised the preparation of the technical information in this news release.

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

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<sup>1</sup> Internal company report: Mineracao Manati Relatorio Operacional Dezembro -1990

<sup>2</sup> Meridian News Releases of March, 16 & 29 and April 6 & 12, 2021

<sup>3</sup> Internal company report: BRA30000124--009

#### ABOUT MERIDIAN

Meridian Mining UK S is focused on the acquisition, exploration and development activities in Brazil. The Company is currently focused on resource development of the Cabaçal VMS Copper-Gold project, exploration in the Jaurú & Araputanga Greenstone belts located in the state of Mato Grosso; exploring the Espigão polymetallic project and the Mirante da Serra manganese project in the State of Rondônia Brazil.

#### FORWARD-LOOKING STATEMENTS

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The Company cautions that it has not completed any feasibility studies on any of its mineral properties, and no mineral reserve estimate or mineral resource estimate has been established. Geophysical exploration targets are preliminary in nature and not conclusive evidence of the likelihood of a mineral deposit.

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