Blind Ag-Pb-Zn and Au-Mo discoveries in MAG Silver’s Cinco de Mayo Mega-System, Chihuahua, Mexico

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Cinco de Mayo "CDM" is a Ag-Pb-Zn-Cu-Au carbonate replacement deposit "CRD" located in north-central Chihuahua, directly along the western boundary of the Jurassic Chihuahua Trough, a deep crustal break that hosts Mexico’s most important CRD/skarn systems. Three blind discoveries have emerged at CDM through 15 years of systematic exploration driven by the recognition of key features shared with Mexico’s major CRDs including favorable regional structural and stratigraphic localization combined with hallmark mineralization characteristics. Alluvium covers most of the area, thus exploration is guided by geological interpretation, iterative 3D drillhole modeling and geophysics plugged into a proprietary CRD model.

Replacement massive sulfides occur along the covered eastern flank of Sierra Santa Lucia, a range composed of Mesozoic carbonates, shales, and sandstones in stacked thrust sheets. Mineralization was first cut (2006) at Cinco Ridge (Hole 1) and later (2007) 1,500 m to the northeast (Hole 20). These zones were linked in 2011 and the combined “Upper Manto”, is 4,000 m long, extending from 125 m to 850 m depth, and 1.5 to 16 m thick. Mineralization consists of massive coarse-grained galena and sphalerite with pyrite replacing pyrrhotite. Barite, fluorite, and manganese calcite are the principal gangue minerals. Roscoe Postle Associates has made an independent inferred mineral resource estimate of 12.45 million tonnes at 132 g/t Ag, 0.24 g/t Au, 2.86% Pb, and 6.47% Zn.

In mid-2012, drilling targeted 225 m beneath the strongest mineralization known in the Upper Manto cut four distinct, closely spaced massive sulphide zones ranging from 3.1 m to 61.6 m in thickness. The uppermost intercept probably connects to the Upper Manto and returned 1.38 g/t Au, 139 g/t Ag, 2.62% Pb, and 11.8% Zn over 10 meters. The thickest intercept (61.6 m), called the “Pegaso Zone”, grades 89 g/t Ag, 0.78 g/t Au, 2.1% Pb, and 7.3% Zn. Significantly, no intrusive rocks are intersected, but 350 m of well-developed coarse marble and pervasive tungsten-bearing garnet skarn envelop the massive sulfides, providing strong indications that the core of the CRD system lies nearby.

The distinctive Pozo Seco Molybdenum-Gold Body "PSB" lies under cover 4 km west of the Jose Manto. Discovered in 2008 using geology and ZTEM geophysics, the PSB is a structurally-controlled jasperoid 2,500 m long, by 300 m wide and 50 - 250 m thick. Molybdenum mostly occurs on fracture surfaces as powellite with later native gold. The PSB has an indicated resource of 29 million tonnes averaging 0.147% Mo and 0.25 g/t Au and another 23 million tonnes of inferred resource at slightly lower grade.
Several features indicate that Cinco de Mayo hosts a mega-system: The Upper Manto is one of the largest mantos ever found; The PSB Mo-Au jasperoid is 1,000 times larger than similar mineralization known from other CRDs; large-scale zoning is well developed; most of the 437 holes drilled to date have hit at least trace mineralization, and large untested geophysical anomalies underlie the known mineralized zones. Exploration continues focused on tracing known mineralization towards the intrusive center/source of the system.