IMPLICATION OF SPHALERITE COMPOSITION AT A CENTRAL TENNESSEE MISSISSIPPI VALLEY TYPE DEPOSIT

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ABSTRACT: The Central Tennessee Zinc District (CTZD) hosts Mississippi Valley Type (MVT) deposits. A key criterion for the CTZD deposits remains argillaceous to the breccia. Copper concentrations commonly exceed concentrations reported in MVT districts globally. Data erite mineralization is present in two forms: open space filling in dolomite collapse breccia and re-

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SUMMARY RESULTS: Plots of rare/trace elements against four axes against two show similar relationships; however, rare elements exhibit better separability than trace elements. The data show the following:

1. Copper and Zn concentrations are commonly measured concentrations reported in MVT districts hosting North America, China, Belgium, and

2. Galena crystals occasionally occur along with some fluorite in the calcite matrix filling of the breccia bodies and not

3. Copper and Mn concentrations commonly exceed concentrations reported in MVT districts from North America, China, Belgium, and

CONCLUSIONS: Solutions is inerter and trace/mineral concentrations between breccia hosted replacement ore and replacement ore in nearly horizontal carbonate beds. In this figure the

PURPOSE OF STUDY: No study has examined the compositional implications of sphalerite from different MVT deposits in the U.S. and examined compositional anomalies at the mine between different occurrences i.e., replacement vs open space filling that would significantly change the

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