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Geology of the Bolaras Deposit: A Tertiary, Stratiform, Disseminated Silver Deposit in the Mesa Central, Durango, Mexico

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The Bolaras Silver Deposit is a recent discovery in the “Mexican Silver Trend,” midway between the mining districts of Tovar and Guanacevi in the Mesa Central region of north-central Mexico. It is located 45 km north of the town of Tepehuanes in Durango State. The deposit is classified as a disseminated, low-sulphidation epithermal deposit and is a part of the Sandra-Escobar caldera complex. In October 2016, Orex Minerals Inc. and Canasil Resources Inc. published a maiden resource estimate of 33.3 million ounces of silver in 9.8 million tonnes grading 106 g/t. Subsequent mineralogical and metallurgical testing indicated that a considerable portion of the silver is refractory in nature and will require further examination.

Host rock for the Bolaras silver deposit is a rhyolite crystal lithic tuff of Tertiary age. It is exposed on surface on a gentle hillside as a stratiform, shallowly dipping layer, averaging 20 metres thick. This potassically altered and highly permeable volcaniclastic unit contains disseminations of silver-bearing minerals and broadly spaced quartz stockwork veinlets. Principal silver minerals are native silver, silver halides - cerargyrite and bromargyrite, silver bearing manganese oxides - argentiferous pyrolusite and aurorite, plus fine silver in silicates.

Plans are underway to explore the Sandra-Escobar mineral district through a joint venture between Orex Minerals Inc. and Pan American Silver Corp. in order to evaluate the various styles of precious and base metals mineralization in the caldera complex.

Figure 1. Dale Brittliffe reading the rocks on the Boleras Deposit. Photo by: Ben Whiting.

