

## **Geological Observations, 3D Interpretation and Mining-Economic Considerations for Estimating and Reporting the Mineral Resource at Cukaru Peki**

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The Cukaru Peki copper-gold deposit (Cukaru Peki) was discovered in 2012 and is located some 5 km south of the Bor mining complex in the Timok metallogenic complex in eastern Serbia. Cukaru Peki comprises an Upper zone deposit (UZ) of high-sulfidation mineralization and an underlying Lower zone deposit (LZ) of porphyry-style mineralization.

SRK first prepared a mineral resource estimate for the UZ in January 2014, and an updated estimate and preliminary economic assessment (PEA) for the UZ were produced in April 2016. The PEA was prepared for Reservoir Minerals Inc., which, at the time, had a 45% share in the project, with the remainder being owned by Freeport McMoRan Exploration Corporation (FMEC). Since then, the UZ has been wholly acquired by Nevsun Resources Ltd., which also owns 60.4% of the LZ in joint venture with FMEC.

The highest copper and gold grades occur at the top contact of the UZ body at a depth of some 400 m below surface underneath a Miocene basin. Here an inclined lens of massive pyrite breccia has been outlined with a diameter of roughly 200 m. Beneath this lens, a semimassive sulfide zone extends downward for more than 300 m within an altered andesite host rock; vein intensity and copper and gold grades decrease downward.

This paper summarizes the outcome of some three years of drilling and sampling, geological observations, 3D modeling, and preliminary mining and economic work which have shaped the current mineral resource model at Cukaru Peki. We also describe how the mineral resource classification and reporting has been influenced by these considerations.

The April 2016 NI 43-101 PEA considered conventional underground mining methods potentially targeting the very high grade mineralization (13% Cu and 10.6 g/t Au) at the top of the deposit in an initial production phase before mining lower grades toward the base of the UZ until copper grades fall to a cutoff grade of 1.0%.

We discuss the importance of defining the high copper and gold grades to enable a production profile focused on project repayment and also the medium-term prediction of different mineralization styles, given their influence on concentrate quality and associated downstream costs. In addition, models of alteration and structural zones associated with the UZ resource are being developed to assist with mining geotechnical considerations and exploration strategy.