

CHEMICAL AND MINERALOGICAL PROFILE OF THE LAS ÁGUILAS MAFIC-ULTRAMAFIC DRILL CORE, SAN LUIS PROVINCE, ARGENTINA

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Mafic-ultramafic rocks (M-UM) outcropping in the Sierras de San Luis, Central Argentina, constitute a 3 to 5 km wide belt that extends 100 km NE-SW. The Las Águilas mafic-ultramafic body carry a sulphide mineralization consisting of pyrrhotite, pentlandite, and chalcopyrite, as veins and disseminated to massive ore. Associated with the sulphide minerals are disseminated chromites (spl) and platinum group minerals (PGM) such as Pd-bismuthotellurides (merenskyite), platinum arsenides (sperrylite).

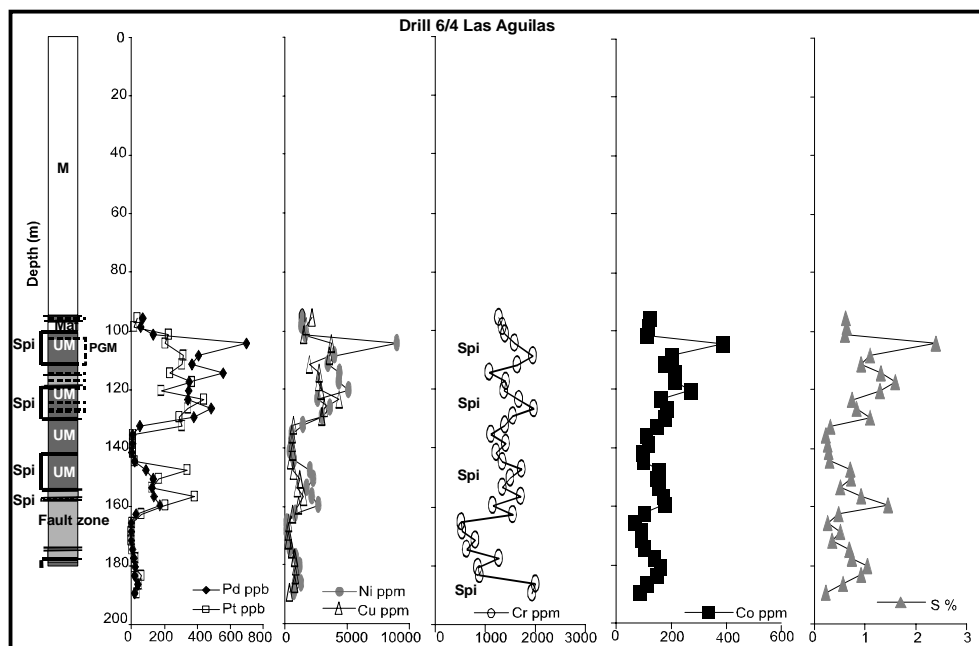


Fig.1. drill core profile with concentrations of Pt, Pd, Ni, Co, Cu, Cr and S

Drill cores from Las Águilas indicate that mafic units (norite-gabbro-norites) dominate in the upper part with ultramafic units (pyroxenites-websterites and dunites-harzburgites) become more significant at depth. A strong correlation between S, Ni, Co, Cu, Cr, Pt and Pd indicates the presence of one to three levels of mineralization within the ultramafic unit (Fig.1). The maximum concentration of these elements coincides with the mineralized units containing PGM and chromite. These relationships reinforce their value as an exploration tool in areas where primary magmatic sulphide mineralizations have been affected by later remobilization processes and the host rocks are tectonically disturbed.

