

Abstract

From 1977 to 1981, The National Geological Survey and Mining Company of Algeria (ORGM) tested various geophysical methods at the North Numidian Mercurial Zone. The study included: gravity, magnetic, VES-IP, gradient array IP and a mercury vapour soil gas test. This paper presents the results of a case history from the Mra-Sma site, which is located near the city of Azzaba. The objective of the ground based geophysical survey were the mapping of the lithology and tectonic structure, as well as the study of the extension of the mineralized area. The geology of the study area is very complicated by the presence of several allochthonous units. In the majority of the cases, these allochthonous units and nappes are superimposed and strongly brought closer by tectonic movements. The results of the present study illustrate that; an integrated geophysical strategy can assist and enhance the exploration for mineralization in a region of complicated geology such as the north Numidian Mercurial zone