

## Evaluation of the quality of the ground of the lake of Reghaïa in heavy metals and study of their distribution on the surface

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### ABSTRACT/RESUME

**Abstract:** *The Lake of Reghaïa is an exceptional natural heritage in the Algiers area, it underwent a dramatic pollution by its rejection supply due to the close industrial activities. Since the year 1999. That, encouraged us to accordingly take part in order to present an evaluation of the quality of the grounds of the site as regards pollution in MTE (metallic trace elements) heavy metals. We have selected a ground located on western bank of the lake, of a square surface, limited to 2,500 m<sup>2</sup> of a slope of 25%, it is agricultural but not exploited for more than 20 years according to the owner of the ground. That has an advantage of excluding the irrigation by water from the lake. A systematic sampling of triangular grid of thirteen (13) samples with positions GSP (geographical system of positioning) of each point. Quantities of approximately 100g more 1 kg of ground were taken. Analysis by AAS (atomic absorption spectrometry) has shown presence of heavy metals (Ni, Zn, Pb, Cd, Cr, Cu and Hg), which does not exceed the values of reference on selected surface, of the contents of (Ni and Zn and Hg) exceed slightly the values reference in the superior part of surface located at 64 m of bank of lake, and approximately 20 m in height compared to the surface of the lake, the pollution of the surface of ground were not noted, however, from the contents of (Cr) go beyond the values of reference in all surface marking higher spades in the medium of surface, On the other hand, accumulation Cu is on the level nearest to the lake. Strong Mn concentrations on all the surface particularly they are high on first line close to lake and the limit superior of analyzed surface.*