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Hydrogeological and hydrogeochemical study of a volcanic-sedimentary coastal aquifer in the archaeological site of Cumae (Phlegraean Fields, southern Italy)

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Abstract

A hydrogeological and hydrogeochemical survey in the *Cumae* archaeological site (Phlegraean Fields, southern Italy) together with radon levels determination in groundwater have been carried out. The study was motivated by the fact that the site is often submerged by the outcrop of groundwater, threatening the integrity of ruins, and hence by the need to preserve such important archaeological park. The hydrostratigraphic and hydrogeological data revealed the presence of a multi-layered aquifer system, formed by a shallow unconfined and a deep semiconfined aquifer. The groundwater flow appeared to be strongly influenced by vertical and lateral lithological

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