

## عنوان مقاله:

Detection and determination of groundwater contamination plume using time-lapse electrical resistivity tomography (ERT) method

## محل انتشار:

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## خلاصه مقاله:

Protection of water resources from contamination and detection of the contaminants and their treatments are among the essential issues in the management of water resources. In this work, the time-lapse electrical resistivity tomography (ERT) surveys were conducted along 7 longitudinal lines in the downstream of the Latian dam in Jajrood (Iran), in order to detect the contamination resulting from the direct injection of a saltwater solution in to the saturated zone in the area. To investigate the pollutant quantities affecting the resistivity of this zone, the temperature and electrical conductivity measurement were carried out using a self-recording device during 20 days (before and after the injection). The results obtained from the self-recording device measurements and ERT surveys indicated that in addition to the salt concentration changes in water, the resistivity changes in the saturated zone were dependent on other factors such as the lithology and absorption of contaminants by the subsurface layers. Furthermore, the expansion of contamination toward the geological trend, sedimentation, and groundwater flow direction of the area .were shown

## کلمات کلیدی:

Saltwater, Saturated Zone, Electrical Resistivity Tomography (ERT), Jajrood, Iran

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/891844>

