

# Electromagnetic surveys around a near-shore seepage region in the Yatsushiro shallow sea, Kumamoto, Japan

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Two electromagnetic sounding methods are applied to a near-shore seepage area in the Yatsushiro shallow sea, Japan, to detect sub-bottom fluid flow. The shallow water experiment shows time variation of the self-potential related to ground water flow controlled by tide. Also, high apparent resistivity zone is localized near wells with upwelling groundwater. Thus, electromagnetic sounding on the sea floor is effective to detect seepages.