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(57) Abstract :

ABSTRACT: Title: A Method for Detecting a Liquefaction Potential Index of Soil The present disclosure proposes a method for field procedure corrections of SPT N-values on the liquefaction potential of soils. The method for detecting a liquefaction potential index of soil includes: conducting the SPT manually using standard SPT equipment and a procedure for measuring a SPT N-value for liquefaction evaluation of subsoil, applying field procedure correction factors for non-standard SPT procedures and equipment individually to influence studies on liquefaction evaluation, obtaining a corrected SPT N-value of the subsoil upon applying the field procedure correction factors to measured SPT N-values of the subsoil, and calculating a factor of safety (FOS) as the ratio of Cyclic Resistance Ratio (CRR) to Cyclic Stress Ratio (CSR) of the liquefaction of the subsoil. The proposed method is relatively simple and inexpensive to perform and detect a real-time result in the field.

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